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ABSTRACT

A selection of the papers from a symposium on the application of linguistic concepts to teaching composition are contained in this document. The papers and authors are as follows: "Introduction: Coherence, Composition, and Text Linguistics" (Nils Erik Enkvist); "TUAP and the Teaching of Writing in Sweden" (Lennart Bjork); "Discourse-Level Interlanguage Studies" (Lars Sigfred Evensen); "Cohesion, Conference Patterns, and EFL Essay Evaluation" (Ann-Charlotte Lindeberg); and "Types of Coherence Breaks in University Student Writing" (Eleanor Wikborg). Notes on contributors are included. (EL)

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MEDDELANDEN FRÅN STIFTELSENS FÖR ÅBO AKADEMI
FORSKNINGSINSTITUT

Coherence and Composition: A Symposium

Papers
edited by

NILS ERIK ENKVIST

CS 209 479

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PREFACE

One of the activities of the Research Institute of the Åbo Akademi Foundation has been to sponsor conferences. On March 16-18, 1984, the Institute offered its facilities to a symposium on *Coherence and Composition*. Its purpose was twofold. It was supposed to give some fourteen invited participants an opportunity of sharing their problems in applying linguistic concepts to the teaching of composition. And it was to stimulate inter-Nordic co-operation in the application of discourse linguistics to the teaching of composition.

The title of the symposium reflects the use of 'coherence' as technical term. It was chosen because it suggests the kind of comprehensive textual connexity that cannot be described merely in terms of overt, discrete, and syntactically describable cohesion signals such as anaphoric or cataphoric pronouns, deictics, connectors and conjunctions, but which must be studied with a semantic and pragmatic apparatus capable of viewing texts in relation to cognition and interaction. Thus the papers were expected to view composition, not only as an exercise in linguistic correctness and in technicalities traditionally subsumed under 'grammar', but also as a process of thought, argumentation and expression. It was hoped that at least some aspects of this process would prove explicable in terms of text and discourse linguistics. This, of course, is very much what students of rhetoric have tried to do for two thousand years or more. One might say that our concern was to try to sharpen our rhetorical tools by adding to them concepts from recent text and discourse linguistics.

To judge by the response of all those approached, there is indeed considerable demand for interdisciplinary, inter-Nordic and international contacts in this particular area. One of the results of the symposium —

and perhaps the most significant — was the establishment of an inter-Scandinavian working party which was to contemplate ways and means of satisfying such demands. The working party first met in Stockholm in May, 1984, and constituted itself as *The Nordtext Project* under the chairmanship of Lennart Björk of the University of Stockholm. There is now a detailed project plan for 1985-87.

Another product of the symposium was the present volume, containing a selection of the papers read at Åbo in March, 1984. In addition to their intrinsic interest, we hope they will help to stimulate contacts and collaboration between ourselves and all those who share our interests.

June, 1984

N.E.E.

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Nils Erik Enkvist
Åbo Akademi

INTRODUCTION: COHERENCE, COMPOSITION, AND TEXT LINGUISTICS

Abstract. In one form or another, the teaching of composition, and theorizing about it, have gone on at least since the birth of rhetoric as a discipline. But our thoughts about composition are affected by shifting social needs and by developments in relevant disciplines such as linguistics. Thus in recent years the increased interest in linguistic stylistics and the advent of text linguistics and discourse analysis have introduced new perspectives into the study of cohesion and coherence in composition. There is also a general feeling that we ought to improve contacts between theorists and practitioners, between teachers working with different languages in different situations (mother tongue versus foreign language), and between teachers working with the same language in different countries.

1

Like other manifestations of so-called bad manners in the young, and often also in the not-so-young, clumsy composition has been under censure for many centuries. Indeed rhetoric, the discipline whose purpose is to improve communicative skills, was born long before linguistics. Thus those who worry about composition today are in a venerable tradition, whether they find comfort in such a thought or not. They are members of one of the world's old professions. But their arsenal is still receiving new weapons. In recent years, linguistics has been widening its scope to cover many of the problems traditionally dealt with under rhetoric rather than under grammar in the trivium of the seven liberal arts.

My purpose in this introductory talk is to survey some of the developments in linguistics that are potentially relevant to the teacher of composi-

tion. First, however, some general remarks on the significance of composition teaching in the society we live in. To the present audience, these observations may well be trite and commonplace. To others, shapers of policy and makers of decisions among them, they may seem less obvious.

There have been times when skills in composition in speech or writing were relevant to the careers of tiny minorities: bards, homilists, those responsible for charters and documents, and of course scholars and statesmen. But this is no longer so. In our society, increasing numbers of people must express themselves in exposition and argument. And it is a fact that we do not only judge the quality of texts that claim aesthetic value. Even a research report, a business letter, a newspaper advertisement or a postcard to one's friend can be written well or poorly, depending on how well it satisfies its own criteria, conventional as well as bound to their own unique context. A badly written text can easily damage its writer by having an effect different from that intended or by revealing something of his shortcomings. Qualities of writing are therefore a problem for all who write, whether they like it or not.

In many countries, including the Nordic, the worries about composition in schools and universities have been on the increase. Some teachers are convinced that more students than before have difficulties in expressing themselves, particularly in writing. Standards of literacy — so goes the complaint — are not what they ought to be, and perhaps not even what they used to be. Even highly verbal pupils who are good at entertaining their hearers may dry up and produce awkward texts when they are compelled to write. But why such problems? Some teachers see them as one aspect of a thoroughly commendable process of democratization. Higher education is now given to pupils whose homes have not prepared them with the kind of literacy that used to be taken for granted. There are other reasons too. The young watch tv and read Donald Duck instead of absorbing their classics. School classes are too large, groups too heterogeneous. Syllabuses reserve too little time for practice in creativity and self-expression. Teaching and testing methods emphasize the reproduction of facts rather than skill in exposition and argument: true-false and multiple-choice questions have spread at the expense of essays. Whatever the reasons may be — and they are likely to vary from country to country, town to town, school to school and group to group — the general feeling is that

something ought to be done. In a historical perspective it is plausible to hypothesize that the interest in rhetoric has grown whenever there was a social need for the formal, overt teaching of composition. One could try to write a social history of rhetoric starting out from such a hypothesis: witness for instance the flourishing of rhetoric in ancient Greece and Rome, during certain periods of the Middle Ages and during the Renaissance, at American colleges and universities where it has promoted a freshman-composition-textbook industry, and so forth. In such a view we might now expect a further blossoming-forth of rhetoric, in forms that are adaptable to our current needs.

At the same time, composition teachers working in the field seem to be increasingly keen on discussing their problems and trying to share them with others in the same plight. Mother-tongue teachers and foreign-language teachers are finding a common denominator in their work. Teachers at university level are keenly aware of what school did, and failed to do, to their pupils. Schools in turn expect universities and colleges to prepare future teachers to face the realities of schoolteaching. And at all levels, composition teachers seem to be increasingly interested in finding out what has been done abroad to meet comparable challenges. There have been some contacts between Scandinavians and the Bay Area Writing Project in California, to mention just one concrete example. And some graduates from our universities have themselves taught composition classes at American universities and applied their experiences at home after their return. I think we all share a feeling that we ought to do more to profit from relevant experiences elsewhere. We have a great deal to learn. Perhaps we also have something to give.

2

Such, then, are the demands. What can the linguist do to supply the composition teacher with potentially applicable tools?

Applied linguistics has been defined in many ways. One view likens it to a highway providing for two-way traffic between linguistics and the field, notably in the teaching of language skills. In such a view the task of applied linguistics is to watch, and to profit from, those areas of theor-

etical linguistics that are of potential use in the field, and, conversely, to stimulate the theoretical study of problems that are of practical importance but remain insufficiently known or unsolved. Even the task of linguist-watching, of keeping abreast of potentially applicable theories, is more important than before, because the territory of linguistics has expanded rapidly, not least in the direction of pragmatics, text and discourse. Today, after fifteen or twenty years of intensive work in linguistic stylistics, text and discourse linguistics and conversation analysis, the outlines of an overview are beginning to emerge. Early pioneering surveys of text linguistics (such as Dressler 1972, Enkvist 1974, and van Dijk 1977) have been supplanted by updated, comprehensive surveys (such as de Beaugrande and Dressler 1981 and Brown and Yule 1983). Through the settling dust we can see more clearly the growth of text and discourse linguistics, and I shall describe my own view in terms of four approaches to discourse, or four different types of models or theories of text and discourse (depending on how 'model' and 'theory' are defined). Each of these approaches or models has a focus different from the others, though they also overlap and allow dealing with the same problem from different perspectives.

The first text linguists worked with what I have called **sentence-based text models**. They took a text such as it was, without tampering with its sentence or paragraph division or other structures, and tried to explain what linked its sentences and cemented them into a text. They were mainly interested in what we might call **cohesion**, namely the study of overt linguistic mechanisms such as anaphora and cataphora and ellipsis, conjunction and the like, which serve to link sentences to each other. *Cohesion in English* by M.A.K. Halliday and Ruqaiya Hasan (1975) is a classic example of such a sentence-based approach.

A more ambitious, and in some senses more rewarding, type of model assumes that a text should be seen as one particular arrangement, or 'textualisation', of a set of underlying elements — text atoms, propositions, predications, or whatever we prefer to call them. I shall here label such models as **predication-based**. According to this approach, a text arises when a set of input predications and their semantic (causal, temporal, etc.) relations are textualised according to a certain definite text strategy. With different strategies, the same input can be textualised into different texts.

An example of such a model is available in Gunnell Källgren's book *Innehåll i text* (1979, pp. 106-126). Of course predication-based text modelling leads to many problems. Can we set up algorithms or rules for splitting up texts into their atoms, or must we rely on some vague principles or even intuitions? Conversely, can we set up algorithms for combining and embedding predications into texts, according to certain pre-defined and explicit strategies? What do text atoms or predications look like before their textualisation? Are they perhaps pre-lexical (to allow for thematically motivated lexical choices among converses such as *A bought the car from B/B sold the car to A*)? If so, in what kind of notation should they be symbolized? Logicians and semanticists unfortunately cannot provide the text linguist with ready-made notational systems that cover all the complexities of natural languages, and students of artificial intelligence usually work with very limited areas of cognition. Further, are the cohesion-marking elements of texts, such as connectors and conjunctions, and the interactionally relevant elements such as pragmatic particles actually part of the underlying input predications? Or are they added by the strategy? Until we learn to answer such questions with algorithmic stringency, our work with predication-based text models will have to rely heavily on intuition. This fortunately does not prevent us from using it for many practical tasks. Indeed the teaching device known as 'Sentence Combining' can be regarded as an application of predication-based text modelling (see e.g. Daiker et al. 1979).

If we go on to ask, where do predications or text atoms come from?, we shall have to widen our territory and to build a new model with wider scope. We must in fact try to model relevant areas of human cognition. In so doing we can draw on the work of cognitive psychologists, who are trying to find out how human beings process information, and of students of artificial intelligence, who build computer models capable of imitating human information processing in some limited and well-defined areas. We shall, in other words, find ourselves trying to develop a **cognition-based**, or **cognitive**, text model. Cognition is usually modelled in terms of networks, frames or schemata, sometimes supplemented with descriptions of dynamic processes (for an easy introduction, see Winograd 1977; more technical are Schank and Abelson 1977, Sanford and Garrod 1981, and Findler 1979). In these networks there must be connections between all those

concepts that might give covert 'coherence' to a text, and not only overt 'cohesion' where the linguistic links (connectors, conjunctions, anaphoric pronouns and the like) are there for all to see. Thus *smoke* and *fire*, *waiter* and *menu* and *tablecloth* and *fork*, and perhaps even *hammer*, *thumb* and *hand-aid* should be connected because they may serve to link sentences into texts.

One basic difficulty in cognitive text modelling is that coherence is not an inherent quality of a text. Coherence is rather a function of the text and of the equipment the hearer or reader brings to its interpretation. Thus to those who know that the malleus, incus and stapes are all ossicles of the middle ear, these three terms are closely linked and could make a text cohere. To those who do not, the same text may remain incoherent. Connexity is therefore a matter of an interaction between the text and the receptor's knowledge base, and when we operate cognitive text models we must know whose knowledge base we are trying to describe. All this should remind the composition teacher of one fundamental principle. We must know whom we are writing for: our text will fail its purpose if the receptor lacks the knowledge base he needs to understand it. We must always have an audience in mind and try to divine what frames and schemata and scripts the receptor has at his disposal.

There is, however, yet another question we might ask. What prompts a certain individual in a certain situation to choose and extract certain elements from his cognitive store for textualization? To answer such questions we need yet another, fourth type of text model: an **interactional** one sensitive to interpersonal behaviour, to the way in which human beings behave when they interact with others. In interactional discourse modelling we get involved with matters such as the Gricean maxims (Grice 1975), speech-act theories (Cole and Morgan 1975), politeness and face (Brown and Levinson 1978), turn-taking (Oreström 1983), and the like. For the student of composition, for instance the patterns regulating politeness in written communication will be of great interest. To communicate successfully we should always know whether our text conforms to expected patterns, or whether it breaks conventions and surprises, jolts or shocks the reader. Sometimes such shocks may help us to achieve our objective. Sometimes they are regarded as inappropriate or even disgusting. The important thing is that we do not unsuspectingly provoke a reaction

opposite to what we intended. Pragmatic particles and the elements sometimes collectively labelled as 'grease' (because they make the communication run more smoothly) are part of the interactional machinery of language.

It has been convenient to classify text models into these four groups, sentence-based, predication-based, cognitive, and interactional. We should not, however, read too much into such a classification. The approaches all supplement each other and connect in complex ways. For instance, patterns of interpersonal, interactional behaviour are naturally part of our knowledge and in that sense enter into cognition and should be included in a full cognitive model. Those who want to contemplate such questions will do wisely in looking at the different model types in terms of Russian dolls or Chinese boxes rather than as discrete slices of a pie.

More relevant to us here is that each of the four models has something potentially useful to offer to the teacher of composition. Thus the sentence-based model equips us to describe how sentences can be connected with the aid of overt markers. The predication-based model teaches us to organize texts and to build sentences according to definite strategies, and perhaps to experiment with different strategies to see which of them produces the best result. The cognitive model reminds us of the importance of adapting our text to the capacities of a prospective hearer or reader, and enables us to describe coherence and perhaps also inference, that is, supplementing the universe of the discourse with features not explicitly mentioned in the text itself. And the interactional models draw attention to the elements that serve to mark interpersonal relations between communication partners.

3

Let me now turn the tables and ask, how and at what level should a composition teacher describe the connexity of texts?

"What is wrong with our students' composition," one of my colleagues once said to me, "is not that they don't know the language but that they cannot think." This reflects one of the experiences of those who have tried to apply linguistics to the teaching of composition. A mere mastery of

grammatical linking mechanisms is not enough. The difference between a poor essay and a good one must be examined in a wider rhetorical perspective if we are to arrive at meaningful results. The first stage in composition, the one the ancients subsumed under *inventio* and involving knowledge about one's subject and the collection of data, may well fall beyond linguistics proper (though its study does enter into cognitive text modelling). The organisation of the essay, the *dispositio*, is accessible to description in terms of discoursal macrostructures and their exponents on the textual surface. A classic subject in composition courses has been paragraph structure, often discussed in terms of a topic sentence which summarizes the main idea and a number of supporting sentences which may form complex hierarchies. I shall not here go into the different senses of 'paragraph', as a typographical unit or as a discoursal unit definable through its internal coherence and cohesion. Though there are instances where one and the same text could be typographically paragraphed in different ways, there often is, and should be, a connection between typography and the internal structure of the text. Thus a text demanding short paragraphs, such as a leading article in a popular newspaper, will come to favour the kind of argumentation that uses short, self-sufficient assertions and relatively simple hierarchies of supporting sentences. This can be verified by experiment. After scrambling, the sentences of a leading article in the *Daily Mirror* could be put together to make reasonable sense in a larger number of ways than could a similar number of sentences from a leader in *The Times*. At least to some extent such differences can be described, not only in terms of connectors and overt cohesion devices, but also in terms of semantic and inferential links and relations such as additive, adversative, causative, conditional, concessive, and the like, which bridge the gap between syntax and argument analysis.

Just as obvious are the needs for students of composition to master the principles of information dynamics (Enkvist 1973). The sentences of a text are not autonomous. Their task is to contribute to the flow of information transmitted by the text, to link up with what went before and with what comes after. To do this, every sentence has to conform to certain basic principles that govern the placing and syntactic role of old and new information, that is, information that the speaker or writer presumes is familiar or new to the receptor. The usual strategy in expository writing is to place

old information at the beginning of the sentence (as many linguists would put it, into the 'theme' or 'topic' or into a 'thematic position') and new information later in the sentence (into the 'rheme' or 'comment'). If new information is placed in the beginning of the sentence, it must be specially marked, in speech by stress and intonation and in writing by special devices such as clefts. Though people are skilled in handling such information-structuring principles in their spontaneous impromptu speech, in writing they often lose this ability, perhaps because the different tempo destroys the spontaneity and automatic handling of information patterns. Therefore inexperienced writers may well profit from lessons which exemplify the successful handling of information patterns and give some basic principles (such as 'old information first' and 'weighty constituents last') that help them until they can write fluent text without such artificial props and crutches.

4

One of the classic problems in linguistics is how to reconcile two views of language. Obviously a language, with all its varieties, contains an underlying, central, common core, a code shared by all the variants. Otherwise we could not understand people who use another variant. But on the other hand we also know that is known as "a language" consists of a large number of historical variants (the Bible for instance often represents an older form of a language), regional dialects, social forms, and styles, which may differ considerably among themselves. One classic solution of this problem has been to adopt distinctions between *langue*, the socially determined code, and *parole*, the individual speech act making use of *langue*; or between competence, the individual's internalization of his linguistic code, and performance, or what he actually does in a concrete speech situation. As a heuristic device such distinctions have been useful because they have made it possible for linguists to isolate certain problems and disregard others by relegating them to *parole* or performance. And *parole* or performance, they could then say, was beyond their immediate interest. Thus we know a great deal more about language because linguists have been able to concentrate on essentials of the codes and norms instead of trying to

deal with the confusing welter of performance phenomena all at once. But this does not mean that *parole* and performance are uninteresting. On the contrary, what people do in concrete situations shows how they actually process language. And then the code itself has been influenced and even shaped by the needs of its use. If we want to understand why languages, and actual pieces of discourse, look the way they do, with all their redundancies and other types of multiple insurance against misunderstandings, we ought to look at language processing in authentic speech situations. We should not even disregard phenomena such as hesitation, correction and repair. These are perfectly natural under the pressures characteristic of real-time processing. The devices languages permit to make hesitation and correction possible are worth studying as part of our total means of communication.

The point I wish to come to, against the background of the problem of codes and variants including phenomena characteristic of impromptu speech, is that every text is always composed in one specific variant of the language. There is no 'general' or 'styleless' language. Every text and every sentence is always associated with a certain constellation of situational and contextual factors. For any text we can guess in what range of situations it would be likely to occur. We can place texts in time and distinguish between old-fashioned and avant-garde usage. We can place texts in regions by their dialect, or regard them as being in a supraregional standard if they contain no regional markers. We can place speakers, and often writers too, in a certain social category depending on how they pronounce, speak, and write the language. Often we can construct situations around a text: we can imagine in what kind of situation a specific text would be used. In this sense, no text is completely 'general' or 'neutral'. Some texts might be attributed to a wider range of contexts and situations than others, but there are no texts, at least texts of any length, that are altogether lacking in clues to their origin and function.

For the teacher and student of composition, this raises some interesting issues. One of them is that every text should be evaluated in relation to its purpose and situation. An effective business letter should look different from an effective love-letter. An effective article on nuclear physics will look different from an effective commentary on a football game. As rhetoric is the doctrine of effective communication, it must be context-sensitive.

It must be capable of advising us how we can most effectively use language in a range of definite situations. **Stylistics** is a term often used for the branch of linguistics or of the study of literature which links texts to situations and thus examines situational varieties of language. In text linguistics, the term **text typology** has also been used for the study of text types correlate with certain categories of communicative situations. **Text type** is thus closely related to the traditional term **genre**. One way of reconciling style, text type and genre would be to reserve 'genre' for traditional, literary text types, and to say that different styles may exist within each text type and genre. Different linguists will use such terms in different ways, however.

In classifying texts we can start from a number of premises. We can look at the texts themselves and classify them by their text-internal characteristics. Or we can look at the situations in which texts arise, including the medium, and classify them by situation and purpose, that is, by text-external criteria. We can also rank texts on a scale between success and failure, between good and bad — a pursuit well known to teachers, literary critics, editors, and all who consciously, or subconsciously, respond to and evaluate texts. We might also try to classify texts by their processing characteristics. In impromptu speech, for instance, the text must be processed in real time by both speaker and hearer. And the face-to-face situation as well as the need for real-time processing then combine to give impromptu discourse its special text-internal characteristics: hesitation, correction, use of deictics and the like.

For the student and teacher of composition, the problem is to choose what he can draw upon from various overlapping branches of linguistics, such as sociolinguistics, stylistics, text and discourse linguistics, and text typology. This is the knowledge he can then adapt to his own specific purposes. These in turn will depend on the goals of the teaching. Are we trying to improve our students' skills and insights in expository writing in general, or, more specifically, in conventions and formats of, say, business letters? In many teaching situations, particularly those oriented to specific purposes, these problems are obvious enough to take care of themselves. But there are many environments, in foreign-language teaching for instance, where goals are far less specific. There may be a temptation and even a necessity to settle for some kind of diffuse 'general language', that

is, a variant with a maximal range of potential usefulness. If so, we ought to know what structures actually satisfy such criteria of generality.

When teaching languages within the sphere of Western European culture we have often tacitly relied on a great deal of positive transfer from the mother tongue. We have assumed that a person with a solid grounding in a 'general' register of a foreign language will readily learn to use that language for more specific, for instance professional, purposes. All he has to do is to transfer to it the patterns and habits he already knows from his mother tongue. It would be interesting to know under what conditions and with what kinds of teachers and students such assumptions actually work. The mushrooming of courses in LSP, 'language for specific purposes', seems to indicate that assumptions of automatic transfer have sometimes proved too optimistic. At least LSP courses add to the students' motivation. But they may lead to problems, for instance where language teaching is poorly correlated with the rest of the syllabus. There is little sense in placing students in courses in Russian for physicists before they know enough physics to understand the texts in any language, including their own.

To add a concrete footnote to these general and therefore abstract observations, let me cite one specific instance which shows how different principles of text organization can be weighted differently in different text types.

The verb *to put* normally takes an obligatory adverbial of place: a sentence such as *John put his hat*, sounds odd in comparison with *John put his hat on the shelf*. The locative adverbial is thus necessary for, and closely tied to, the verb *put*. In fact the bonds tying the locative to the verb phrase are strong enough to make the locative hard to move out of the verb phrase. A study of large corpora of authentic texts in English shows that sentences in which the locative has been fronted are rare, and tend to occur in texts such as cookery-books where we find expressions such as *Into a well-greased frying-pan put three eggs*. I take this to reflect a word-order principle characteristic of operative texts such as cookery-books and guidebooks: the order in which matters are presented should correspond to the order of operations, and matters should be presented as concisely as possible, big cookery-books or guidebooks being a nuisance. My example sentence is thus short for 'first take a well-greased frying pan and then put

into it three eggs'. We might explain locative fronting as the result of a conflict between two principles. One principle wants to keep the locative within the verb phrase. And another principle suggests that it ought to be fronted if the resulting order reflects the order of operations. In cookery books and guidebooks the latter principle may outweigh the former, and the locative moves to the front of the sentence.

5

I made a point of citing this concrete example because the view of a sentence and text as a resultant of conflicting and conspiring forces leads us to a processual (or 'procedural') view of language. In recent years, an increasing number of linguists have come to see linguistic structures, not as existing for their own sake but rather as elements playing a role in processes of text production and text comprehension. This processual view of language harmonizes nicely with the trend in composition teaching which sees composition as a process in many stages (as Lennart Björk emphasizes in his paper in the present volume). In this view we should not only look at a text as a finished, static product, but as something that grows in a long process including all the operations subsumed under *inventio*, *dispositio*, *elocutio*, and perhaps *memoria* and *pronuntiatio* in ancient rhetoric. Text comprehension too enters into the process of text production because texts are produced to be understood. When we produce a text we must, consciously or subconsciously, think of the receptor and adapt the text to his requirements and convenience.

This new processualism and the more traditional structuralism are complements rather than opposites, however. Two important types of process are matching, in which we compare two structures to see whether they are similar or different according to some specific criterion of similarity, and transformation through which we change one structure into another. Both matching and transformation thus operate on structures: to explicate these processes we need structures. Therefore the processualist cannot do without structures. The difference between the processualist and the structuralist is rather that the processualist makes use of structures

to explicate processes, whereas the structuralist could sometimes use processes (such as the transformationalist grammarians' transformations) to arrive at structures.

There is a corollary to this. As the structuralist used processes merely as aids towards the generation of structures, he could feel free to invent his processes ad hoc. In generative grammar, any process that produced the desired structure was all right, irrespective of whether it was patterned on any actual process known to us from psychology. The process linguist on the contrary would prefer to make use of processes brought from outside linguistic description, from psychology or from computer science or in some instances perhaps from physiology.

To the teacher of composition, the processualist stance is relevant in two respects. First, on the theoretical side it will remind him that linguistic structures do not exist for their own sake. Rather they exist to trigger off processes of interpretation and comprehension. In such a frame of thought, any text that succeeds in triggering off the desired interpretation and leads to the desired result is *ipso facto* a success. A text which does not, for instance because it is awkward to process or because its form distracts or annoys the receptor, is, in the same frame of thought, a failure. Similarly, if a speech leads to the desired result, in spite of possible hesitation and correction, it is, in its own terms, a success: we should not judge it with a written-language bias and with the standards of expository writing in mind (cf. Linell 1982).

Secondly, the processualist view can be translated into teaching methods, as I already suggested and as Lennart Björk explains in his paper. I can here refer to Björk for the rest.

6

The gist of my argument might be repeated in the form of a conceit. Different schools of linguists have all brought their produce to a *smörgåsbord* from which the composition teacher is invited to help himself. In addition to the traditional products of grammar and sentence linguistics it contains various types of text models, speech act theories, descriptions of types of linguistic variation including style, and some ideas about the

processes of text production and text comprehension together with principles for the judgment of success and failure in communication. One central task in research on composition is to see to what extent concrete and observable features of sentence and text structure and text processing can be found to correlate with impressionistic text evaluation. In other words: what linguistically definable, concrete features might help us to distinguish a text which works nicely in a certain situation from a text which does not? From which of the dishes of the increasingly opulent linguistic *smörgåsbord* can a teacher help himself to such features? This question is the common denominator of the papers by Lars Sigfrid Even- sen, Ann-Charlotte Lindeberg and Eleanor Wikborg in the present volume.

We should of course be asking ourselves such questions. But we should at the same time remember that linguistics, though an expansive discipline, must have a ceiling somewhere. I have already emphasized that people judge texts against standards set by their past experiences of the world. Inferencing — that is, using a text as a take-off point for conclusions not expressly stated in the text itself — is a process necessary for textual coherence, but laborious at best to explicate in terms of explicit rules (Enkvist 1983). We infer because we think we know, not only language but also how the world usually works. And trying to explain how a certain person thinks the world works is a formidable task. From our colleagues in artificial intelligence we have learned how difficult it is to model even small fragments of human cognition and relatively simple processes of inference. We shall therefore do wisely in reckoning with a residue of factors in text evaluation that are not amenable to description in stringent terms, at least not in those of today's linguistics.

But it is the rhetorician's privilege, and indeed duty, to cross over from linguistics into frankly subjective evaluation and impressionistic criticism when the need arises. Only by so doing can he engage in the rhetorician's primary task: evaluating the efficacy of a text in a certain situation. This does not, however, mean that he should confuse more objective, linguistic text description with more subjective text evaluation. And he would do well in finding out whether he might help to expand linguistic theories and models so as to diminish some of the remaining white spots on the maps of language structure and language use.

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TUAP AND THE TEACHING OF WRITING IN SWEDEN

Abstract. The low quality of student writing in Sweden is attributed to three main factors: inadequate training of teachers of Swedish in the teaching of writing; low priority given to Swedish on the "gymnasium" curriculum; and inefficient methods in the teaching of writing. Possible remedies are discussed and a preliminary model for the teaching of one particular kind of paragraph structure in expository writing is presented.

1 Background

TUAP (Text Structuring in Expository Prose: an Investigation into University Student Writing) is a two-year project, financed by the Bank of Sweden's Tercentenary Foundation, investigating expository writing by university students in five departments: Business Administration, History of Literature, English, Law, and Journalism. The project has two main interrelated aims: first, to study how students solve — or fail to solve — the problem of coherence in expository writing; secondly, to make recommendations for future action in the field of composition teaching at the gymnasium and university levels. Eleanor Wikborg discusses the first aim elsewhere in this volume; here I should like to give a brief account of the background of the project and of the direction its educational proposal is likely to take.

The origin of the project was not only teacher dissatisfaction with the quality of student writing — a perennial phenomenon — but the distinct impression that the writing had deteriorated markedly over the past two decades. This impression was, and is, not limited to university language departments. In a rather scathing article in the *Dagens Nyheter*

(81-05-14), Lars Furhoff, Rector of the School of Journalism in Stockholm, pointedly described the situation in no uncertain terms:

Det är allmänt omvittnat från universitet, högskolor och näringsliv att gymnasisterna inte kan skriva den typ av utredande och argumenterade texter som fordras i det dagliga livet.¹

It is not surprising that university assessment of student writing should be equally critical, for in many cases only a summer vacation separates a secondary school and a university essay. And, naturally, the quality of university student writing is in direct proportion to the quantity and quality of the teaching of writing in the secondary school system. That teaching, in turn, is largely determined by the status of Swedish as a school subject. That is, in a system where the mother tongue enjoys high priority on the curriculum, it is possible to allot sufficient time to the various aspects of the subject — including writing. The opposite consequence is still more to the point here: a curriculum which de-emphasizes (in terms of time) the teaching of the mother tongue prohibits the teaching of writing, because an effective writing program is of necessity teacher intensive.

The teaching of Swedish in the gymnasium has low priority: a mere three (3) forty-minute lessons per week are allotted for the many-faceted activities which now constitute the subject (here I am discussing only the university preparatory lines). Internationally, this is the lowest figure I have come across. Several countries give higher priority; Norway, for instance, allocates five lessons a week, with an optional extra three hours for the language line. From a pedagogical point of view the low allocation in Sweden means that a teacher of Swedish finds it impossible to come even close to an adequate writing program. One example will suffice: in one class that I know of the students have written a total of three (3) proper essays in the first two (2) years of their gymnasium career — and this on the humanist line! That such quantitative limitations have qualitative effects are beyond doubt.

From the point of view of this particular teacher category, this means a professional life of high frustration and dissatisfaction — as I have found out in numerous interviews throughout the country. Teachers are fully and painfully aware of the fact that their students are not receiving adequate writing practice and/or instruction. The system does not allow it.

Most teachers are equally aware of the fact that they themselves have had inadequate training in writing, especially in the teaching of writing, to become efficient teachers of it. It is only in the last decade, for instance, that "text production" has been added to the university syllabus for Swedish. And, even now only a modest amount of writing is being done and taught. Again, the time factor is crucial: the studies ("Blocksvenska") for future teachers of Swedish are crammed into a mere three (3) terms. Within this time limit it is of course entirely too optimistic to expect a university to train *satisfactorily* a teacher for the gymnasium level in the complex and extensive aspects of the subject: Swedish language and literature as well as comparative literature and media studies. It is hardly surprising that teachers given such minimal help for their future teaching of the subject in general — and of writing in particular — should tend to de-emphasize writing in their classrooms.

The vicious circle — of inadequately trained teachers circumscribed by an inadequate allocation of lessons — is reinforced by the fact that most of the teaching of writing that is taking place is of the traditional kind. The normal procedure is that students do most of their writing under exam conditions: they turn up at a predetermined time to choose from a number of predetermined, and secret topics; after a couple of hours' writing they hand in their copied first drafts for correction and grading. The actual "teaching" is minimal.

It is true that this is how writing has been "taught" for decades, and that students somehow learnt to write. But is also true that the gymnasium earlier was more homogeneous and that, perhaps above all, the students used to write about four times as much as they now do (i.e. four essays per term as compared to one). A legitimate conclusion seems to be that today infrequent writing in combination with traditional teaching is a major factor behind the low quality of student writing.

As this brief analysis of the background — the context — of TUAP indicates, there are three main and interrelated pre-requisites for improved writing programs in Swedish schools. The first is that teachers get better training in how to teach writing — increased emphasis on writing during their university studies, and refresher courses for those who are already practicing teachers.

The second is that the gymnasium curriculum must give higher priority to mother tongue teaching.

The third, and perhaps most easily achieved, pre-requisite is a new approach to the teaching of writing. Swedish composition teaching is traditionally "product" oriented. That is, the teacher is interested almost exclusively in the final product — the process leading to that product is largely ignored and thereby valuable *teaching* opportunities are lost. International research and teaching practices have now proved that "process" oriented teaching is superior. This approach is the subject of the next section of this paper.²

II The Writing Process

"Writing is a process, and it must be taught that way..."³

Since TUAP started in a department of English, it seemed quite natural to try to view the Swedish situation in an Anglo-Saxon perspective. This seemed especially so since writing is given high priority in English school and since American research on the teaching of writing probably is second to none.

In the U.S., in fact, rhetoric and its implementation in education have long had a stronger position in colleges and universities than in Europe —as thousands of European students can testify after their experience of the obligatory "Freshman English" course. In the last decade particularly, there have been unrivalled research and pedagogical activities in the field. Above all, the work done within the Bay Area Writing Project at Berkeley from the mid 1970's onward, has had a tremendous impact on the teaching of writing throughout the country. Most states now have similar writing projects and there is an umbrella organization called The National Writing Project to help coordinate and disseminate research and pedagogical methods and results.

The basic pedagogical thesis of the National Writing Project is that the teaching of writing is the teaching of the *writing process*; as quoted at the beginning of this section: "writing is a process, and it should be taught that way." This means that the teacher should help the students through

the various *stages* of the process — as systematically as possible — from the pre-writing phase to the post-writing. By so doing he will help the student understand the process and get a perspective on the problem, pleasures and benefits of writing and thereby to become a more effective writer.

Briefly, the basic phases normally identified in the writing process are the following:

1. Pre-writing
2. Writing
3. Responding
4. Revising and Editing
5. Post-writing

The identification of these phases is of course no new discovery: we all know them from our own writing experience. What is new — to most teachers — is the idea of going through the various phases with the students, of making them aware of the special problems of each stage and of providing them with help and encouragement as they proceed through the stages. Let us look at these phases in more detail.

1. Pre-writing

Pre-writing is largely ignored in traditional teaching. For instance, the topics set for the essays written under exam conditions are kept secret up to the actual time of writing — a procedure which deflects the main purpose of the writing — to improve writing ability — into testing factual knowledge about a subject. "Process methodology" on the other hand encourages generous pre-writing activities, during which the students may be said to "rehearse" their writing both by private thinking and reading as well as by classroom brainstorming or discussion of particular topics — all in order to help the individual student to extend and organize his thinking about a subject and to identify his audience *before* he enters into the communicative act of writing an essay. Pre-writing activities to stimulate the student's creative thought are of course particularly valuable for weaker students. So, if the object of the writing is to help students *write* better

(and not to check their knowledge of a specific subject) such support is pedagogically superior to the traditional way.

2. Writing

By "writing" is here meant first-draft writing. This stage may be the least time-consuming of all, provided the writer has had adequate pre-writing preparation. The primary focus of first-draft writing is on contents rather than on form or style — on *what* to say, not on *how* to say it. Often the student is unaware that the first draft — for any writer — is a long way from the final draft, the finished product; that revision is almost always necessary and that improvement is always possible.

Traditional teaching of writing does not normally provide for first-draft improvement. Instead, the first version is treated as final product; admittedly the student is given time to copy the first draft (sometimes in ink) before it is handed in, and some surface polishing is possible, but significant improvement is out of the question.

3. Responding

English and American research has shown that peer response is highly helpful at the revision stage. It is recommended therefore that students are divided into small groups of 3-5 members to share their first drafts for constructive peer response. Reading his own work to a small number of classmates helps the writer to get a sense of audience, of reader response and experience. Receiving constructive response to his writing facilitates his revision. Listening to, reading and discussing other members' work gives him insight into other writers' problems and thereby into the writing process itself.

Group response activities demand careful teacher guidance, however. To offer constructive and positive response — not to correct — is a difficult art with which the students need help and practice. On the other hand the reward is high: research has shown that student writing improves considerably with such practices also as regards the mechanics of writing — spelling, grammar and punctuation.

4. Revision and Editing

Traditional teaching encourages a student to abandon his writing at as early a stage as possible by virtually preventing him from revision activities (except for the minimal surface polishing it allows him to effect as he copies his first draft against the clock). Process methodology insists on thorough revision to make the final version as good a piece of writing as the student is capable of. To help him achieve this, the teacher should be actively participating during the revision procedure(s) with constructive questions and suggestions. Again the primary aim is to *help* the student write better, not to submit him to continual testing.

5. Post-writing

This phase includes anything done with the piece of writing after the student has handed in his final version. It may thus involve classroom discussion, publication in a student magazine or newspaper and so forth. It almost always also includes grading. Of course in its most extreme form, traditional teaching places most if its emphasis on the grading phase of the writing process. Process methodology attempts to redress this by drawing attention to the preceding phases, to the teaching involved in these earlier stages. This is not to argue that grading is unnecessary. No doubt many students experience grading as a strongly motivating factor, but in the wider perspective of their learning its significance surely ought to be minimized.

III Coherence in Expository Writing

To each student's writing coherently is of course impossible in a strict sense. What I believe is possible, however, is to help them *improve* the coherence of their expository writing. After their general fluency in writing has improved by growing insight into, and experience of, the writing process, as discussed in the previous section, the students also need help to understand and practice the various strategies and structures available for expository writing.

To focus on such strategies and structures is of course not new, as literally hundreds of American textbooks testify. But it is only recently that the writing process and more traditional rhetoric have come together in the classroom. This is one of many reasons why researchers and educators are far from any consensus about the best way of teaching rhetoric and expository writing.

As TUAP is still in progress, and this is a mere work-in-progress report, I can only give a preliminary indication of what the project report is likely to propose to enhance student awareness of coherence patterns in expository writing. What is clear is that the project's final proposal will be eclectic: research findings and educational practice within the National Writing Project and similar programs in England and elsewhere will be integrated with methods suggested by the experience gained within TUAP.

One basic problem in teaching expository writing is that most students seem very innocent of text structures generally. It has therefore seemed advisable to start at quite an elementary level to help the inexperienced student writer to acquire a perspective on at least one possible structure which can easily be identified in expository writing. For this purpose the following presentation of paragraph structure has proved useful.⁴

A paragraph is a *thought unit*. That is, in a paragraph the reader expects to be able to follow the development of *one main idea* at a time (or one *aspect* of a larger idea). The paragraph, then, consists of a series of sentences unified by *one controlling idea*, or topic.

This topic is often explicitly expressed in a *topic sentence*. Very often the topic sentence is the first sentence of the paragraph (and inexperienced writers are advised to follow this pattern initially). The following sentences then develop the idea stated in the topic sentence, which one might say, tells the reader what the paragraph is to be about.

From another angle one might say that the topic sentence is *supported* by the other sentences.⁵ Let us look at a concrete example.

¹ Every survey ever held has shown that the image of an attractive woman is the most effective advertising gimmick. ² She may sit astride the mudguard of a new car, or step into it ablaze with jewels; ³ she may lie at a man's feet stroking his new socks; ⁴ she may hold the petrol pump in a challenging pose, or dance through woodland glades in slow motion in all the glory of a new shampoo; ⁵ whatever she does her image sells. (Germaine Greer, *The Female Eunuch*).

The first sentence is the *topic* sentence in which the author tells the reader what to expect in the rest of the paragraph. In this case we expect to be told more about the notion that attractive women are effective in sales promotion. This is exactly what we get. The author gives us a few *examples* of familiar advertising scenes in which beautiful women figure conspicuously. The controlling idea of the topic sentence clearly dominates the entire paragraph; the remaining sentences all *support* the topic sentence. A diagram might present the situation like this:

Sentence 1 TOPIC SENTENCE: Every survey ever held has shown that the image of an attractive woman is the most effective advertizing gimmick.

Sentence 2 *Supporting sentence* she may sit...

Sentence 3 *Supporting sentence* she may lie...

Sentence 4 *Supporting sentence* she may hold...

Sentence 5 *Supporting sentence* whatever she does...

This is an example of simple paragraph structure: all the supporting sentences support the topic sentence *directly*. Most paragraphs have more complex structures, with several levels of support. That is, a directly supporting sentence (such as Sentence 2 above) which we might call a "first-level" supporting sentence may in *its* turn have a supporting sentence which we can then call a "second-level" supporting sentence. Let us look at another concrete example:

¹ Stockholm is a city with a high academic status. ² It is the home of the University of Stockholm. ³ It also is the home of the Caroline Institute. ⁴ And it is the home of the Swedish Academy.

In this skeleton paragraph the first sentence is clearly supported by sentences 2-4, which are all "first-level" supporting sentences. Each of these can be further developed. For instance:

¹ Stockholm is a city with a high academic status. ² It is the home of the University of Stockholm. ³ This University has one particularly outstanding faculty, that of the Humanities. ⁴ Among its many renowned departments, the English department is probably at the very top. ⁵ This department has such well-known teachers as... (modesty forbids us to continue).

Here the diagram for the supporting sentences would look something like this:

- TOPIC SENTENCE (Stockholm is a city with a high academic status.)
2. Supporting Sentence, First level (It is the home of the University...)
 3. Supporting Sentence, Second level (The University has...)
 4. Supporting Sentence, Third level (Among its many...)
 5. Supporting Sentence, Fourth level (This department has...)

As the diagram shows, only sentence 2 is a *directly* supporting sentence (first-level) for the topic sentence. The other sentences are of a lower, and descending, order, 3 supporting 2, 4 supporting 3 and so forth.

It is hardly necessary to add that such a presentation of paragraph structure has severe limitations. But as a starting point it may have its usefulness. It is hoped that the final report of TUAP will pursue and develop this kind of approach further.

NOTES

1. "It is generally agreed by universities, other institutions of higher education and industry that high school leavers are unable to produce the kind of expository writing called for in everyday life" (my translation).
2. In this paper I do not discuss the obvious fact that writing ought to be practiced "across the curriculum" — in all subjects; that the teacher who fails to ask his students to write deprives himself, and his students, of an important learning tool.
3. Shirley Boes Neill, *Teaching Writing: Problems and Solutions* (AASA Critical Issues Report, 1982), p. 20. The "process approach" is implied in *Skriva* (1983), an excellent handbook for the teaching of writing in secondary schools, as well as in some progressive Swedish writers on the subject; see Dahl (1982).
4. For a fuller discussion see Björk-Wikborg, *A Guide to Essay Writing* (Stockholm Studies in English Language and Literature, No 2, 1981), pp. 1 ff.
5. The following account is taken from Lennart Björk, Michael Knight and Eleanor Wikborg, *Essay Writing* (Department of English, Stockholm University, 1983), pp. 38-40.

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DISCOURSE-LEVEL INTERLANGUAGE STUDIES

Abstract. Starting out from a global, metatheoretical model of different stages in the development of research in an area, the present paper argues the case for a more solid empirical basis for descriptive studies of cohesion and coherence in student compositions. Within this perspective, methods of sampling and defining data are central research questions. The first main part of the paper focusses on certain basic questions of data collection, discussed with reference to The Trondheim Corpus of Applied Linguistics. In the second main part selected results from pilot research based on this corpus are presented. In an EFL context it is found that connectors is one area where (non-) use correlates with differences in age development and skill.

0. Introduction

When trying to describe the development of research in one area, it is useful to refer to a global stage model (cf. e.g. Hellevik 1977:32f). If the area of study is new, or not extensively researched, it is common to start with relatively impressionistic studies based on material collected in a rather unsystematic manner. This stage is often relatively short and is generally referred to as the exploratory stage.

Exploratory research is often followed by attempts to establish a descriptive framework, a taxonomy. At this stage, analyses are generally based on larger corpora collected in a more systematic way. This stage is referred to as the descriptive stage.

Taxonomies tend to have theoretical weaknesses (like lack of explanatory power). For reasons like this, descriptive studies are often followed by attempts to establish, and refine, more elaborate theories. Here theoretical discussions are often based on small samples of data collected to shed

light on one of a theory's border lines. This stage is in principle endless, and I shall refer to it as the analytical stage.

In real life these distinctions may not be altogether clear. The ability to make leaps is one of the human mind's central characteristics. Thus, one should view the relationship between the stages as a dialectical one.

It is interesting to view present developments in general and applied linguistics in relation to the stage model outlined above. In sentence-based linguistics there has been a clear development from descriptive structuralism to analytical TG grammar. In text-based linguistics, however, the development has been far from clear.

A pioneer study like Dijk (1972) tried to tie a new field to analytical research in another area, sentence-based linguistics. An attempt at establishing a comprehensive taxonomy (Halliday & Hasan 1976) used *Alice in Wonderland* as its main text base. Several recent studies have pointed out the need for dynamic theoretical models (e.g. Eikmeyer 1983, Brown & Yule 1983). Here, an analytical stage seems to be presupposed. This situation, in my view, calls for exactly the sort of global perspective that a metatheoretical stage model may offer.

If we look at applied text-based linguistics, the global picture is again clearer. Most studies so far have been explicitly exploratory (cf. e.g. Lautamatti 1982 and Lindeberg 1983 for EFL studies in the Nordic countries) or descriptive (e.g. Lieber 1981). I do not think that anybody would claim that there exists a *theory* of e.g. coherence in students' composition, and that, consequently, we have reached an analytical stage.

As I view the present situation, our main task is to provide a more solid empirical basis for descriptive studies. If this view is justified, methods of sampling and defining data (and the fundamental assumptions behind chosen methods) become central research questions. After a brief review of Norwegian research pointing out the need for giving higher priority to the discourse level in applied linguistics, the first main part of the present paper will focus on certain basic questions of data collection. The discussion will be illustrated by reference to relevant characteristics of The Trondheim Corpus of Applied Linguistics (Evensen 1982). The second main part presents some very preliminary results from pilot (exploratory) research based on this corpus.

1. Justifying applied discourse studies

As a part of our work to establish a Department of Applied Linguistics in Norway, a national survey of problems in LL/LT as perceived by a statistically representative sample of students and teachers has been carried out (Evensen 1982b, 1983a). The project is restricted to EFL and Norwegian as L1 in Norwegian 'ungdomsskole' (grades 8 and 9) and 'videregående skole' (grades 10 and 11). Completed questionnaires were received from 2295 students (response rate 75.9%) and 774 teachers (response rate 60.1%) at 109 schools. The material has been computerized and analysed statistically using the SPSS programme package.

As presented in Evensen (1983a) writing turns out to be rated as the most difficult skill by both students and teachers, in both EFL and NLI and in both 'ungdomsskole' and 'videregående skole'.

In a follow-up section included in half of the student questionnaires, the writing skill was broken down into subcategories reflecting the different descriptive levels of present-day linguistics. When data from EFL and NLI are analysed together, the text level turns out to be most difficult.

2. Establishing interlanguage corpora

Sampling for IL studies may be regarded as a particular case of establishing language corpora. Most language corpora seem to be based on the assumption that a representative sample of linguistic items is impossible to define. For this reason one has either ignored the question of representativeness altogether or one has resorted to an assumed quota sampling based on size and text typology. Both the Brown Corpus (Kucera & Francis 1967) and the LOB Corpus (Johansson 1980) are based on this latter kind of thinking. I believe that a few elements of sampling theory may show how language corpora might be improved.

The criterion of sample size rests on an assumed interrelation between the size of a sample and its representativeness. This assumption is wrong. The basic criterion for a representative sample is quite different: that for each member of the population (universe) from which the sample is drawn the exact chance of being selected may be computed (Moser and Kalton

1977:80ff).¹ This chance, of course, also has to be larger than nil. The size of a sample may be a relevant criterion for certain purposes, like computation of type/token ratios (cf. e.g. Francis 1979:113ff), but the criterion of size is still a secondary one.

The pioneer corpora also rest on a second fundamental assumption; namely that identity between the unit of analysis and the sampling unit is necessary. This assumption is also wrong.

Using the linguistic unit as one's sampling unit is just one alternative. IL research strongly suggests a different sampling unit — the language user.² Survey methodology (e.g. Babbie 1973) may yield a representative sample of language users. If the language production of such a group is representatively sampled for some practical or theoretical purpose, a representative sample also of linguistic items will be the result. For applied purposes such samples are far from impossible to define. In general linguistics the process would be much more difficult. The principle, however, still holds.

I shall not go further into this question here, just make a slight digression and point out that all this shows once more that the traditional view of the applied linguist as a consumer of linguistic theories (Corder 1974) is wrong. The relationship between these disciplines is not unidirectional, as Corder's view implies; general linguistics may well profit from research in applied linguistics (for further examples, see Evensen 1983b).

In the Trondheim Corpus, the question of sampling language users (in this case language learners) was approached at a relatively abstract level, aggregating groups of language learners within the larger population. A first line of stratification was drawn at region boundaries. The country was divided into four regions based on a classification of dialectal regions (Christiansen 1954). Such a division makes it possible to account for the learners' L1 background in a more precise way. In interlanguage research it has often been tacitly assumed that for each student the source language equals some national written standard. Sociolinguistic research ought to make it clear that this is not the case.

The Trondheim Corpus is based on the assumption that the real source language is a variety of the spoken language which is both geographically and socially defined.

As a first attempt at classifying the social background, socioeconomic aspects of the learners' local communities were taken into account. The sampling was approached from official lists of schools. For each school in these lists a local community code gives access to an index of urbanization (Riding 1974, Asheim 1978). Degree of urbanization was used as the second variable in the stratification process.

It was further decided to collect anonymous information about the occupational status of each student respondent's parents. When related to attitudinal information contained in the accompanying questionnaires this material would make a relatively accurate social classification possible on a *post hoc* basis.

Maturation and skill are central independent variables in IL analyses. Finding out how these variables correlate with the (non-) use of discourse-level language mechanisms will be a central aim in research based on the Trondheim Corpus. In the sampling, grade (8-11) and school type ('ungdomsskole' and 'videregående skole') were used as a third set of stratification variables. The design resulted in a sample where the students involved had had EFL for from four to eight years in school.

In the actual sampling 128 school classes were drawn from the official lists. To increase variance (and, thus, the possibilities for multivariate analyses) the sampling was non-proportional; four classes were drawn randomly from each sub-group (sampling cell) in the stratified population.

From the student respondents both questionnaire responses and xerox copies of their most recent composition were collected. Each set of one individual questionnaire and a composition was equipped with a four-digit code randomly selected by the student respondent. This procedure will make it possible to relate interlanguage analyses to analyses of the information contained in the questionnaires. These have sections on perceived difficulty; problems and practices with regard to teaching materials; methods of study/work in the classroom; evaluation; motivation and classroom climate; and, finally, social background, dialect details and individual choice of written standard, marks in the subject, age and sex.

It may be disputed whether a single composition is a valid expression of the student's communicative competence (cf. Lautamatti 1982). It seems obvious that the design imposes limitations on the material. However, given the perspective outlined above, with emphasis on discourse-level problems in school writing, the limitations seem less problematic.

The last problem to be brought into this discussion is the question of topical control. Many corpora (cf. e.g. Faerch 1979 and Larsson 1982) have controls for topic and thus to a considerable extent for text typology. The acquisition of a text typology in IL is one area of research where, it seems, most of the questions remain unanswered. Thus it was not found correct to impose a text typology such as Werlich's (1976) on the data on an *a priori* basis.

3. *Organizing the data*

The performance analysis of discourse-level parameters in the Trondheim Corpus falls into two stages. In the pilot study a large number of variables is being tried out on a small number of cases (EFL texts). In the main study a small number of variables will be tested against a large number of cases. At this stage, some of the analyses will be automatic, using computer programmes.

For the pilot study a sample of 48 EFL texts has been drawn. In the sampling design region and grade/school type were used as stratification criteria (cf. section 2 above).

Grade and school type are not sufficient to account for developments in student writing. One also has to expect considerable differences between bright and not so bright students who are in the same grade. So far no evaluation of each single text in the corpus has been carried out. In order to obtain a satisfactory response rate the teachers involved were only asked to submit xerox copies of the texts before these were corrected. It has so far been necessary to use each student's general mark in EFL as a basis for ranking the texts. This fact imposes a temporary weakness on the material. Later, each text will be evaluated as described in Larsson (1982).

In the 'ungdomsskole' the evaluation scale has five values, and in the 'videregående skole' the scale has seven values. Using these scales in the sampling would yield a too large sample. Two alternative aggregations were tried out — a hi-lo division and a hi-mid-lo division. Of these the hi-lo alternative turned out to have very little discriminatory power. This fact may be illustrated by a simple Gauss curve.

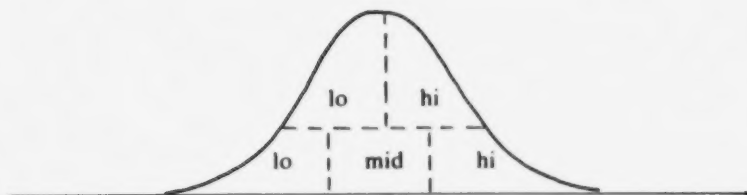


Figure 1. Alternative divisions of a normally distributed population

The illustration demonstrates the fact that the mid part of the curve dominates both sides of a hi-lo division. Thus, the mid category ought to be taken care of. Furthermore, a nonproportional design with an equal number of cases in each cell (cf. Fig. 1) would keep the mid category from dominating the sample. The resulting design is illustrated in Figure 2 below.

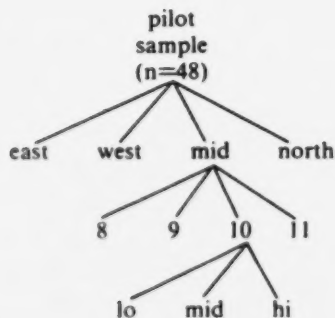


Figure 2. Sampling design for the pilot sample in The Trondheim Corpus of Applied Linguistics

In the main stage the sample will be so large that manual analyses will be of restricted use. For this reason it has been necessary to try out computer approaches even at the pilot stage.

The pilot sample has been read into our local NORD computer. In the registering a relatively accurate reproduction of the original texts has been attempted. All errors have been preserved. The students' typographical

lines have been reproduced as originally written. These give information about intended paragraph structure, and may indirectly give clues to text strategies applied by the students. For the same reason detailed notes have been made about corrections and items crossed out.

Each text is equipped with an identity code containing the information built into the sampling criteria. Following the code is a section with information about urbanization, size of school, the student's choice of written standard,¹ skill level and sex. All information/comments made by the terminal operator have been marked in such a way that the computer may skip these in automated analyses.

4. Preliminary analyses

The preliminary analyses have been guided by both empirical and theoretical studies. In the questionnaire material several discourse-level problems are mentioned: macro-structural shortcomings, pro-forms not referring to anything easily recognizable by the reader (cf. Lieber's 1981 term 'zero reference'), seemingly unmotivated shifts in verb form sequence and non-use/wrong use of connectors.

At one of last year's Hatfield/BAAL Discourse Conference's workshops some of the same problems were brought into the discussion. Here, theme dynamics was also discussed as an important problem area (Evensen 1983c).

In the pilot analyses of the Trondheim material, areas of study have been selected both on the basis of the material referred to above and on practical considerations. The NORD editor's GET STRING facility makes it possible to locate strings (e.g. *therefore*) in the texts. Compared to concordances this simple procedure has the advantage of giving semi-automatic access to display of the whole text being analysed.

So far we (an advanced student, Irmgard Linterman-Rygh, is assisting in the work on the material) have concentrated on analysis of connectors. Very preliminary findings will be presented below. In the display only items correctly used are included. Preliminary analyses of lexical density/variation, lexical cohesion, verb form sequences and text type/writing task correspondence are not yet ready for presentation.

In Part one of the graphical display of the findings the connectors analyzed are ranked on the basis of frequency. Frequencies are computed for each different skill level (lo-mid-hi plus total) within each grade. The taxonomy referred to is based on Enkvist (1974), Halliday and Hasan (1976) and Källgren (1979). In Part two of the display the frequencies are presented separately for each connector type.

When analyzing how the frequencies of the different items distribute along the dimensions of grade and skill level within each grade, it seems clear that connectors do have considerable discriminatory power. The most clear example of this is the distribution of 'and', where there is a steady increase in frequency along both dimensions simultaneously. Connectors, then, seem to be a promising area for further research.⁴

It is clear that a relatively small number of items account for a relatively large proportion of total connector use in the material. The majority of items are used very infrequently by the students in the sample. It is also clear from the display that a number of items searched for do not occur in the pilot corpus. For instance, the common causal connector 'therefore' was not found. Thus, non-use is an important aspect to consider in future analyses (cf. also Linnarud 1978a:27).

It might be argued that the low frequencies observed can be accounted for by the simple fact that most compositions in EFL are relatively short. This hypothesis, however, does not seem sufficient to account for the discriminatory power of connector use. This in text with increasing grade and skill is relatively small.

It seems more promising to state as one's central hypothesis that certain discourse-level language features are acquired very late, if at all. A strong version of this hypothesis can be tested out by analyses of EFL students' L1 performance (cf. Linnarud 1977). Future research might also show to what extent student performance at this level is affected by avoidance strategies (Schachter 1974 and Linnarud 1978b).⁵

NOTES

1. This criterion can only be met with finite populations of known sizes. In linguistic contexts one should consequently look for alternative approaches.
2. I am referring here to the recent tradition in applied linguistics envisaged in Oller & Richards' programmatic title: *Focus on the Learner* (1973).
3. In Norway there are two national standards of written language — *bokmål* and *nynorsk*. All students in grades 8–11 learn both, but one is chosen as the main standard (*hovedmål*). Most students use *bokmål* as their *hovedmål*.
4. The multifunctional nature of 'and' (with temporal and causal secondary functions) is here disregarded. This fact should be taken into consideration when evaluating the empirical results.
5. I am grateful to Prof. Elisabeth Ingram who read through a preliminary version of this paper and offered several suggestions for improvements.

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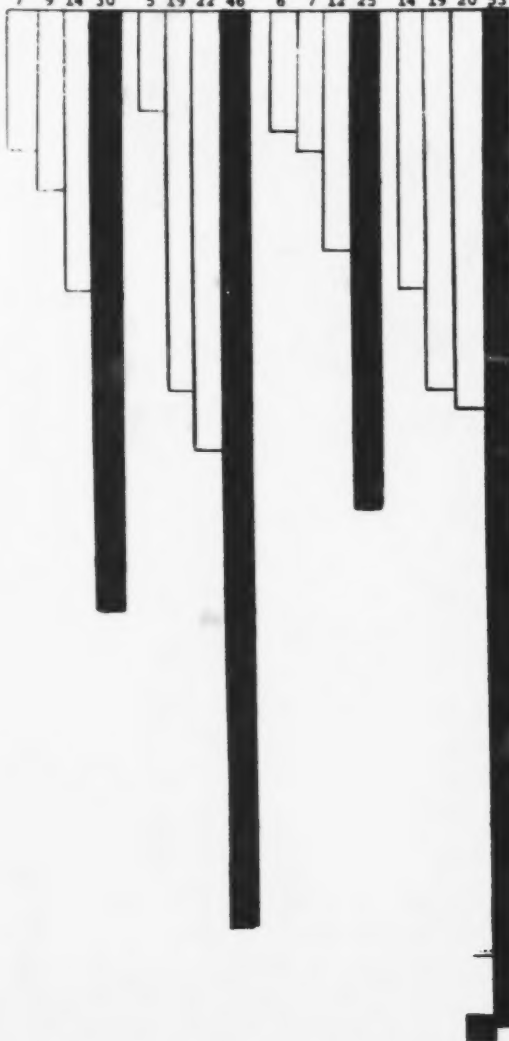
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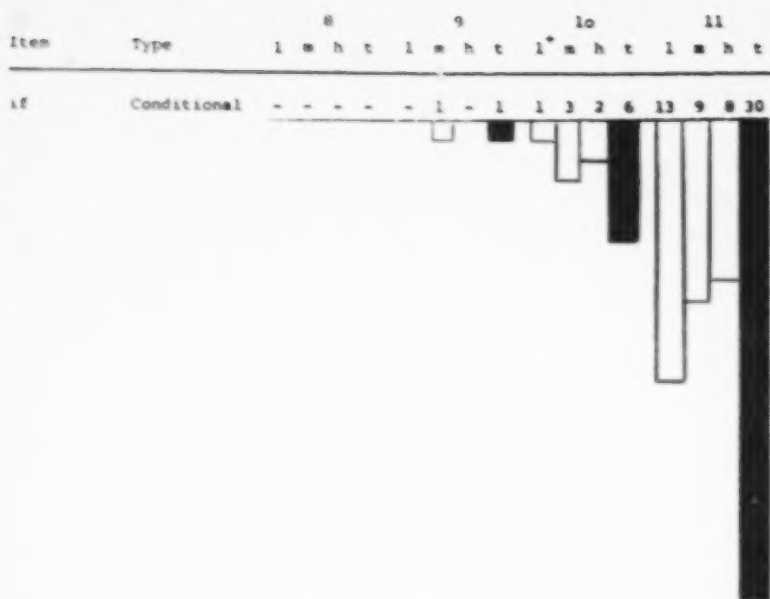
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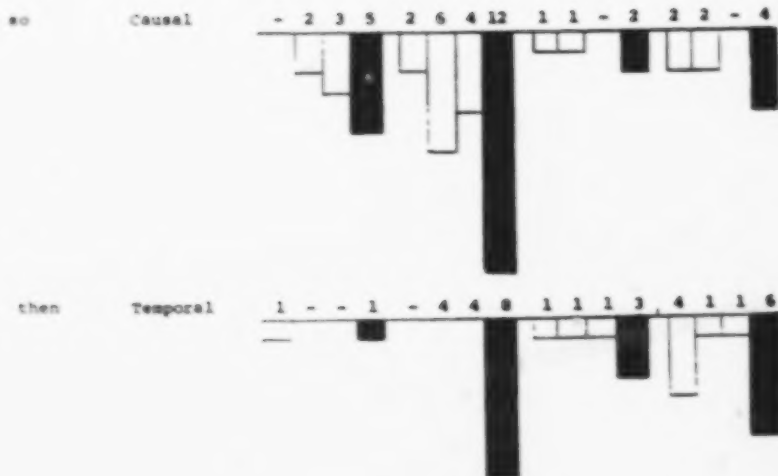
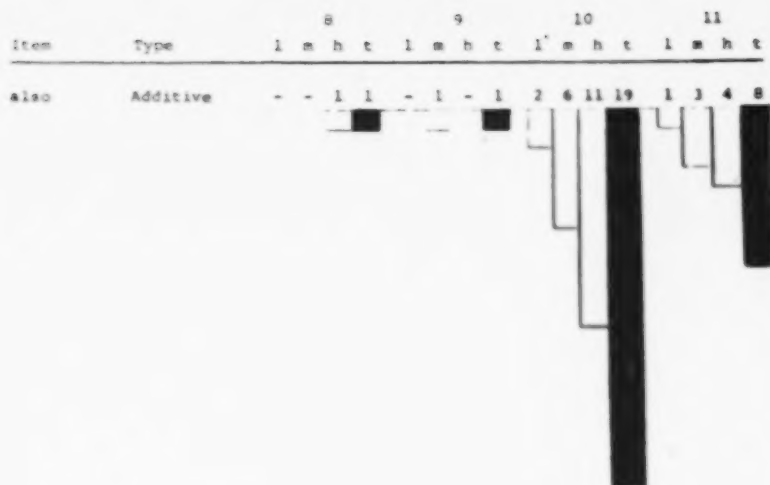
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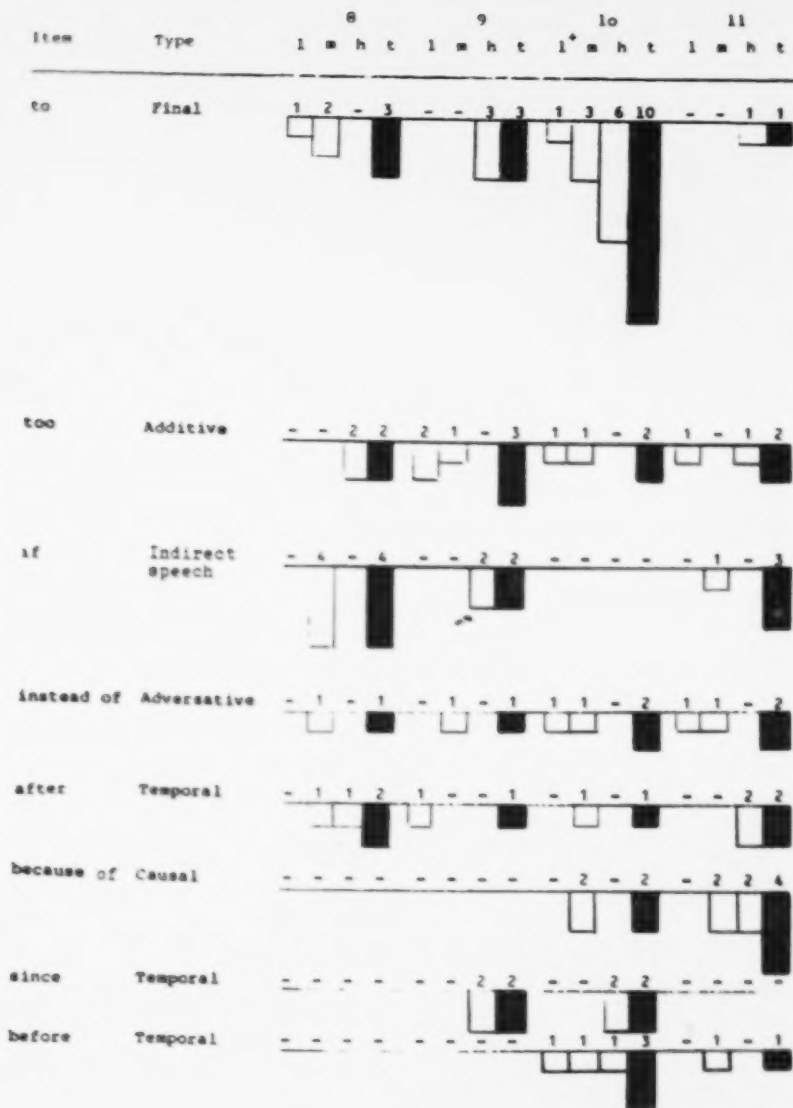
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and Additive³ 7 9 14 30 5 19 22 46 6 7 12 25 14 19 20 53







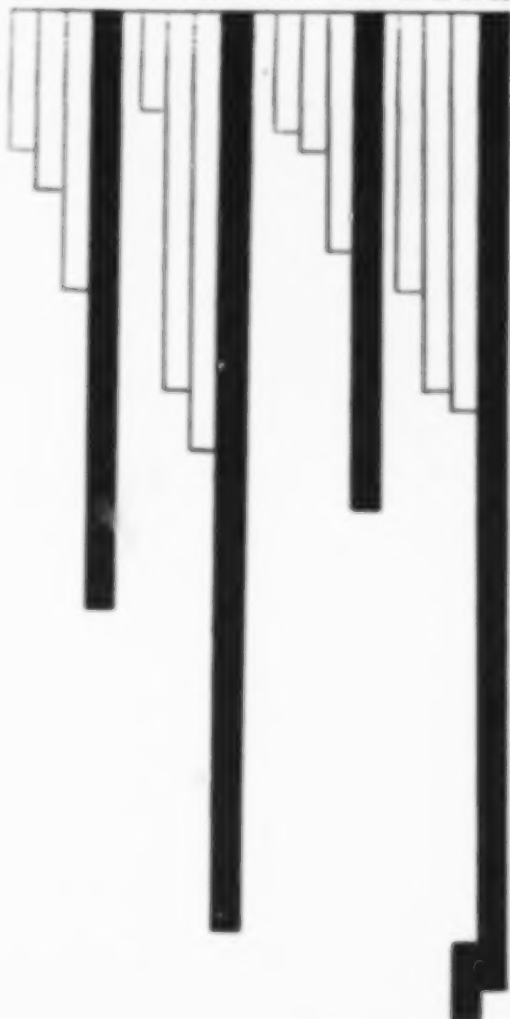


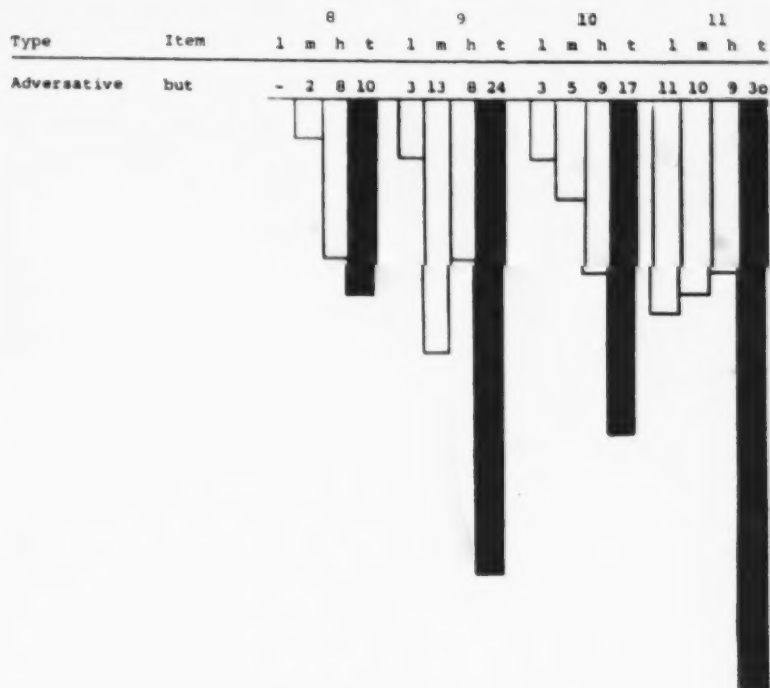
Item	Type	8				9				10				11			
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even if	Concessive	-	-	-	-	-	-	-	-	-	1	1	2	-	-	2	2
until	Temporal	-	-	-	-	-	-	1	1	-	-	-	-	2	-	-	2
as	Temporal	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	1
so...as	Comparative	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
e.g.	Illustrative	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
neither	Additive	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-
for ex- ample	Illustrative	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
that is	Specifying	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
or	Alternative	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
yet	Adversative	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
after all	Concessive	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
for instance	Illustrative	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
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Part II

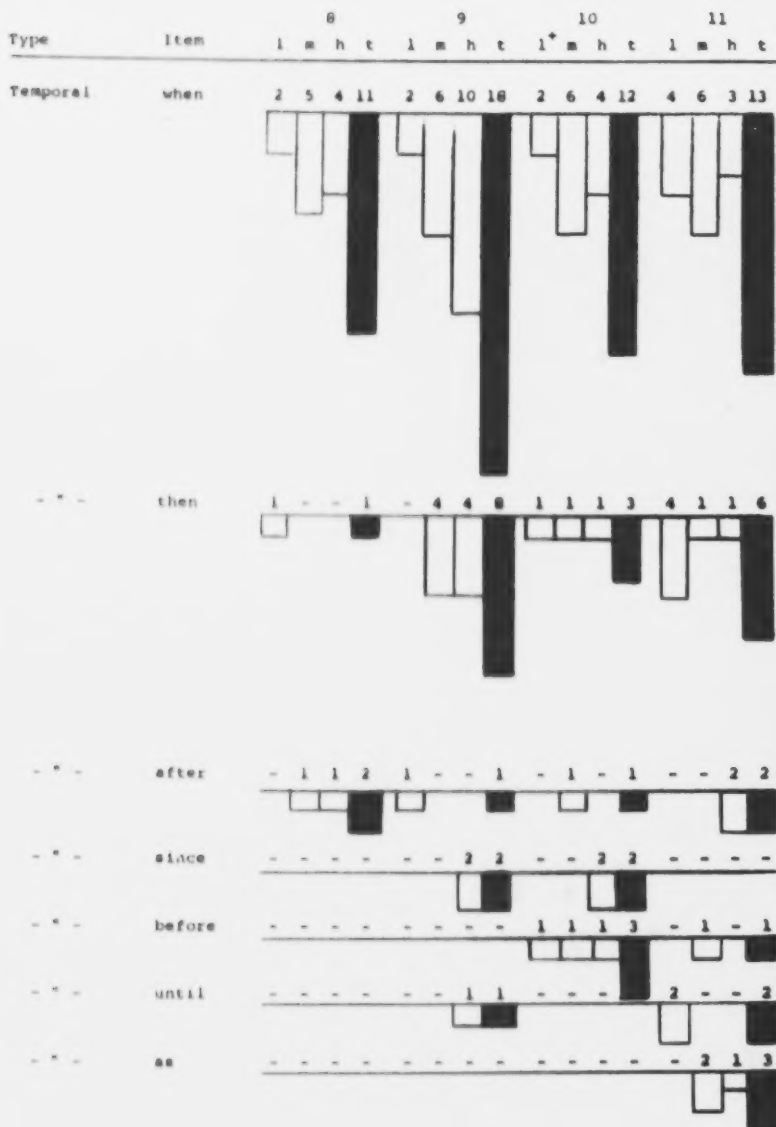
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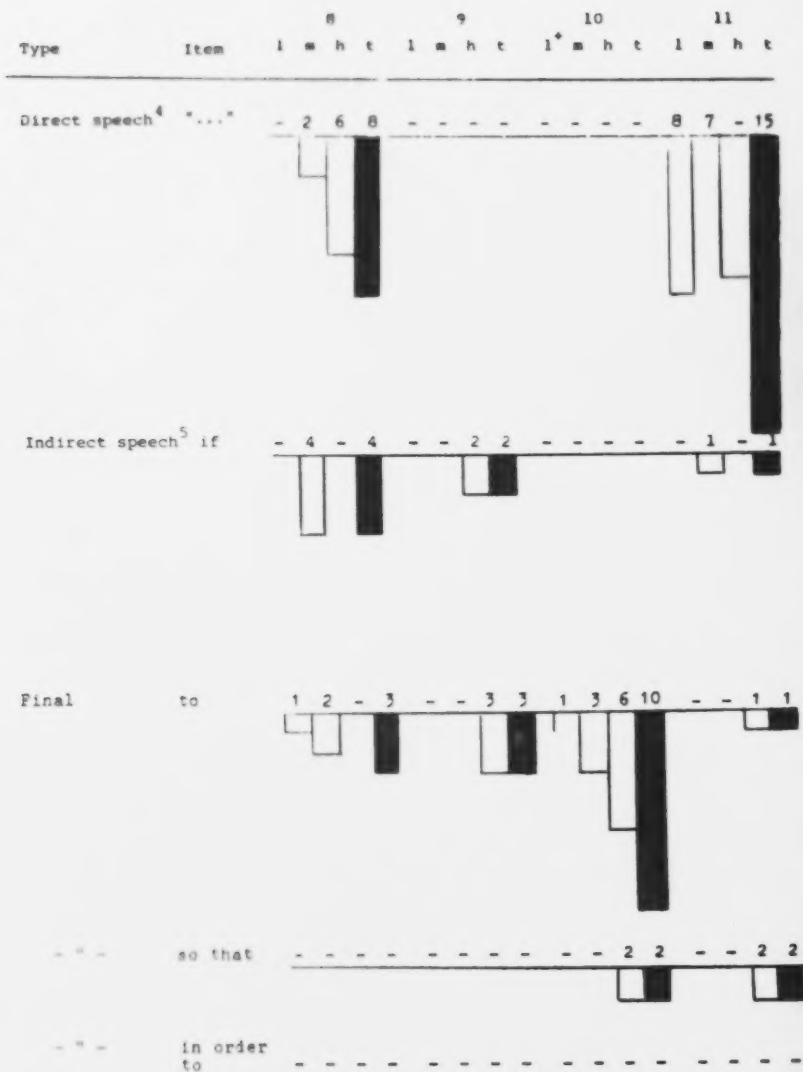


- " -	instead of	-	1	-	1	-	1	-	1	1	1	-	2	1	1	-	2
- " -	instead	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-
- " -	yet	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-
- " -	however	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-
- " -	on the contrary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Type	Item	8				9				10				11			
		l	m	h	t	l	m	h	t	l ⁺	m	h	t	l	m	h	t
Temporal	as long as	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- " -	as soon as	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- " -	once	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- " -	whenever	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- " -	while	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Type	Item	8				9				10				11			
		1	m	h	t	1	m	h	t	1	m	h	t	1	m	h	t
Causal	because	-	1	1	2	1	3	2	6	5	6	4	15	3	4	1	8
- " -	so	-	2	3	5	2	6	4	12	1	1	-	2	2	2	-	4
- " -	because of	-	-	-	-	-	-	-	-	-	2	-	2	-	2	2	4
- " -	as	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- " -	consequently	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- " -	since	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- " -	therefore	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Type	Item	8				9				10				11			
		1	m	h	t	1	m	h	t	1*	m	h	t	1	m	h	t
Comparative	even if	-	-	-	-	-	-	-	-	-	1	1	2	-	-	2	2
	- " -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
	although	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	after all	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
	despite	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	in spite of	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Illustrative	e.g.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
	for example	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-
Comparative	so...as	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2
Specifying	that is	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-
Alternative	or	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-

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COHESION, COHERENCE PATTERNS, AND EFL ESSAY EVALUATION

Abstract. The aim of the present exploratory study was to find and describe patterns of cohesion and coherence which distinguish good expository essays from poor ones. It was found that in order to reflect quality in student writing cohesive analysis as such had to be complemented with analyses of the development of content and of thematic structure. Through the tracing of cohesive ties in thematic and rhematic linking it was possible to arrive at coherence patterns (sequences of rhetorical functions) that are frequent in good essays and less frequent in poor essays. Based on these differences some tentative criteria for measuring coherence are proposed. It was found, however, that to reflect quality, coherence patterns have to be analysed separately for each type of topic.

This study is only part of a forthcoming dissertation, and thus reflects work very much in progress, including the shortcomings characteristic of such work.

The primary task of the teacher of English as a foreign language (EFL) has mainly been to teach the mechanics of language such as grammar and vocabulary. Along with the emphasis on communicative competence new demands have been placed on the teaching of both spoken and written language. Traditionally, the instruction of composition writing has been left to mother tongue (L 1) teachers. However, both in secondary schools and at university level students are required to write essays in English, not least as part of their final exam. EFL teachers have a strong sense of inadequacy in teaching composition, partly because it has not been part of their training, and partly because they feel their knowledge of the issues involved in English composition is not sufficient. They may get essays which are linguistically correct, but which are still deficient as compositions. What constructive feedback can an EFL teacher give the student in

such cases? It was this question that led me to start learning about the methods of analysis used in text linguistics and discourse analysis, in order to try and find a more concrete approach to problems in EFL composition.

In the last ten years studies in text linguistics and discourse analysis have produced a great number of descriptions of cohesion and and coherence in texts written by professionals, or constructed by linguists to illustrate the points made. Relatively fewer in number are studies of cohesion and coherence in student writing in English, although the field is currently experiencing a boom, both in EL I and EFL. Larger studies of cohesion are e.g. Hartnett (1980): *Cohesion as a teachable measure of writing competence* (EL I), and Lieber (1980): *Cohesion in ESL students' expository writing: a descriptive study*. Coherence has been the subject of pilot studies by e.g. Sørensen (1981), Lautamatti (1982), and Connor (1983). Breaks in coherence in student writing at university level have been studied by e.g. Wikborg (see this volume).

Aims

The aim of the present exploratory study was to find and describe patterns of cohesion and coherence that distinguish good essays from weak ones. The ultimate goal is to apply the findings pedagogically, i.e. to use the model for describing to students where their texts function effectively, and where they do not. I hope to find ways of sensitising students to what devices there are in English for connecting segments of text, and to what the effects are on a reader if these devices are used inadequately.

Material

The material of this study consists of student essays ranging in length from about 170 words to about 300 words. They were written in response to exam questions based on set articles and books, and were impressionistically graded by native speakers of English (university lecturers). Thus the criteria for grading were in the English rather than the Nordic tradition.

The text type is dominantly expository (cf. Werlich 1976) with parts in the argumentative mode, and, to a lesser extent, in the descriptive and/or narrative mode.

The expository type was chosen for two reasons: first, it is the type students need to master in order to answer exam questions, and second and more important: it is the type they will frequently need in their professional lives (the writers are first-year students of economics), as trade and business are getting increasingly internationalised. According to the general impression of the graders, the students' ability to write expository essays in English is very poor, and this warrants a survey of their problems and, hopefully, leads to some suggestions as to remedies.

To date, two different essay topics (assignments) have been examined: *Describe some of the differences between a British and a Finnish general election* and *Immigrants in New York*. Five good essays (graded 8.5–10 out of ten) from each topic have been compared with five poor essays (graded 5.0–6.5) from each topic, making a total of 20 essays.

Methodological problems

When analysing not quite well-formed texts, as student essays frequently are, it is necessary to make a distinction between cohesion and coherence, and to define a text unit other than the sentence. The problems are, first, how to define cohesion; second, how to define coherence; third, how to categorise cohesive ties; fourth, how to segment the text into viable units; and fifth, how to delimit the cohesive items.

Cohesion

The system of cohesive devices which has been most widely used to date is the one presented by Halliday and Hasan (1976). Their treatment of cohesion is very extensive, but it suffers from characteristics which make it not directly applicable when dealing with student writing, or generally with writing that is deficient in coherence.

Firstly, Halliday and Hasan analyse only well-formed texts written by professionals, and this means they take coherence for granted. Thus, whenever a surface marker (a cohesive device belonging to their categories) is spotted, it is noted down as having a cohesive function. Problems arise when scholars apply Halliday and Hasan's categories to texts which are not fully coherent. Overt errors in cohesion can be dealt with (cf. Enkvist 1978, Lieber 1980, and Wikborg, this volume), but when coherence becomes questionable, i.e. the text is not fully coherent but not *quite* non-coherent either, a count of cohesive ties or devices becomes misleading. As Källgren observes, it is the perception of the continuity of content that makes a passage seem coherent to the reader, and cohesive devices are only part of that content (Källgren 1979:40f.).

The second problem in using Halliday and Hasan's system of cohesion is their concentration on grammatical cohesion: pronominal reference, substitution, ellipsis, and conjunction, and their more limited discussion of lexical cohesion. Researchers have found that the type of cohesion student writers rely on most is lexical cohesion (Lieber 1980:191f., Connor 1983:6f.), and in fact, as Källgren points out, in Halliday and Hasan's own sample analyses, lexical cohesion accounts for a total of 40 per cent of the identified ties (Källgren 1979:42f.). An additional problem is that lexical cohesion is the category which has been most loosely defined by Halliday and Hasan: "...there is cohesion between any pair of lexical items that stand to each other in some recognizable lexicosemantic (word meaning) relation." (Halliday and Hasan 1976:285.)

In my first pilot study I started out by using Halliday and Hasan's cohesive categories when counting cohesive ties. I wanted to find patterns of cohesion that were characteristic of good essays and were lacking in poor essays. Looking only at surface signals (including the fuzzy category of collocation) I found that, at this level, the differences between good and poor essays were not all that great, with the exception of the use of sentence connectors. (Cf. Lindeberg 1984.) The reasons why Halliday and Hasan's system did not work for my specific purpose will be demonstrated with an analysis of the following sample from a weak student essay on *Immigrants in New York*. (As the first two sentences pose no problem in coherence, I shall start the analysis from sentence 3. No errors in the original have been corrected.)

- (1): 1. People move from their own countries and cities to New York, because they think it is better to live in New York. 2. Businessmen, artists, dancers and bankers, for example, do so.
3. New York is a very big city and because of that there are people from many countries. 4. The foreigners often say that it is really difficult to get to know other foreigners there.
5. People from the same country often move to the same suburb and get to know each other.
6. Immigrants in New York think that the traffic are very lively and that New York is a very dirty city.
7. Many diplomats live in New York. 8. This city is really an international one.

Table 1: Cohesive analysis based on Halliday and Hassan (1976)

Sent. no.	No of ties	Coh.item	Type/Subtype	Presupposed item
4.	3	the foreigners there	Ref. Lex. (2) Ref.	people from many countries people from many countries New York
5.	5	People (the) same country suburb get to know	Lex. (1) Lex. (2) Lex. (2) Lex. (2) Lex. (1)	people many countries there (New York) get to know
6.	4	Immigrants New York New York city	Lex. (3) Lex. (3/1) Lex. (3/1) Lex. (1)	People suburb/New York suburb/New York city
7.	2	diplomats New York	Lex. (2) Lex. (1)	foreigners New York
8.	3	This city international	Ref. Lex. (2) Lex. (3)	New York New York people from many countries

Lexical ties: 1. Same item

2. Synonym or near synonym (including hyponym)

3. Superordinate

4. "General item"

5. Collocation

The cohesive devices in text (1) sentences 3-8 have been tabulated in Table 1 using Halliday and Hasan's system. Quantitatively, the count yields 3.4 cohesive ties per sentence. (Cf. Winburne 1964:1098.) It is evident that the type of tie relied on most heavily is the *lexical* type (14 instances), whereas the *grammatical* type only accounts for a few ties (3 instances of reference). If we break down the category lexical into subcategories, we see that there are 6 instances of *identity*, 6 instances of *synonyms or near-synonyms* (including hyponyms), 3 instances of *superordinates*, and 1 instance of *collocation*.

What do these findings prove? They show that there is a fair amount of cohesive tightness in the passage, if analysed according to the system of Halliday and Hasan. However, a closer scrutiny of the text extract reveals that the coherence is questionable. The reader has the impression of a string of sentences with very loose connection, and is hard put to see the logic of the reasoning. Thus, if we want to make use of cohesive analysis in measuring coherence, our approach has to be different.

Coherence

Coherence is still an elusive concept, although many researchers have tried to pin it down. Most ordinary readers (non-linguists) are able to distinguish between a coherent text and a noncoherent one, but even linguists often have difficulty explaining why a certain text does not *quite* work, i.e. is experienced as slightly disjointed. The problem with coherence is that it is more often a matter of degree than a clearcut matter of presence or absence. Coherence is a function both of features in the text and of the reader's interpretive ability, which depends on various factors like knowledge of the subject, inferencing ability, purpose, and motivation. (Cf. Grice 1975.)

Most researchers agree that a certain amount of surface signals, or cohesive markers, is necessary for easy processing. Thus e.g. Enkvist in his article on non-coherence and pseudo-coherence:

"If a text is to be well-formed it must have semantic coherence as well as sufficient signals of surface cohesion to enable the reader to capture the coherence." (Enkvist 1978:126.)

As became obvious in the sample analysis above, it is difficult to determine what "sufficient signals of surface cohesion" mean without first establishing what is implied by "semantic coherence". In the same article Enkvist makes a related point:

"The general rule is that every sentence of a wellformed text must have a cross-reference to at least one other sentence of that text, and that there has to be an overall coherence involving the text as a whole." (Enkvist 1978:113)

Co-reference and cross-reference (i.e. cohesive markers) entail some semantic coherence, as was seen in the analysis of the sample text, but how do we establish whether there is "overall coherence"? Werlich seems to offer some guidance:

"Coherence is created (— — —) whenever (the encoder) uses some linguistic unit (usually a group of words or a sentence) as a text base unit with a theme and then expands this in linear progression in conventionally ordered and completed sequences of linguistic units." (Werlich 1976:23)

And further:

"In topical sequences, encoders rely on content words to establish coherence." (Ibid. 30)

Combining this view of coherence with the realisation that the major cohesive category relied on by students seemed to be that of lexical cohesion (cf. also Winter 1976 and Hoey 1983 on clausal relations), it would seem that a valid approach to the analysis of coherence would be one that

combines the analysis of cohesion with content analysis. This has been done by Källgren, whose work has greatly influenced mine. Thus, I have adopted her categories of cohesive relations in the approach I shall present in the following (Källgren 69ff.).

Cohesive ties

Källgren focuses on the coherence of content, i.e. on the various kinds of semantic relations identifiable in the text, rather than on the cohesive devices used to signal them. However, she observes that the ties are more easily perceived if there are surface signals, although she does not see cohesive markers as being necessary for seeing the coherence of content. (Källgren 1979:157f.) She emphasises, though, that the cohesive ties underlying the coherence have to be identifiable, and suggests a tentative hierarchy of ties which reflects interpretability:

- comp.
- id.—mod.id.—contr.—specif.—hyp.—inf.
- syn.
- id.=identity (referential and formal)
- mod.id.=modified identity (derivations and items with modifiers)
- comp.=comparison
- contr.=contrast
- syn.=synonymy or near synonymy
- specif.=specification (going from general to specific)
- hyp.=hyponymy (incl. hyperonymy and co-hyponymy)
- inf.=inference

Identity, which may be expressed by the cohesive devices of repetition, pronominalisation, ellipsis, or substitution, makes a text easy to understand, but a high frequency of identity makes the text empty of content (Källgren 1979:81.). Conversely, for the development of content the scale of values goes in the opposite direction. *Inference* is the cohesive category that brings most content to a text, and thus develops the topic (Källgren 1979:81.). However, the higher the amount of inference, the harder the text may be to interpret. Inference is a problematic category in the sense

that it can easily become a "ragbag for loose associations" (cf. Wikborg on inference ties in this volume). Källgren asserts, though, that in order for an inference to be counted as a cohesive tie, the closer ties underlying it have to be recoverable (Källgren 1979:77, cf. also Widdowson 1979:29).

The patterning of cohesive ties according to Källgren's categories should thus reflect both the amount of content in an essay and the development of that content. Her categories for referential cohesion were adopted for this study. For sentence connection, or rather for connection between clauses and clause equivalents, I use Lieber's categories of functional roles, which will be discussed later in this paper.

Since inference is such an important category in content analysis, it would be helpful to be able to define it more closely. In his discussion of the necessity of semantic and especially of pragmatic categories when analysing coherence, Enkvist suggests five types of inference: existential reference (inalienable possession or has-relation), categorical inference (hyponymic is-relations and syllogisms), referential inference (pronominal reference clarified by situational context rather than syntactic rules alone), inference related to transient states, and processual inference, which can be further broken down into the subtypes of presuppositional inferences, inferences related to the process itself, and entailments (i.e. inferences related to the final state). (Cf. Enkvist 1983.)

In practical analysis the decision whether to count an inferential tie as cohesive or not is probably where subjectivity comes in most in the form of an individual reader's previous knowledge, text-processing ability, purpose and motivation. In my analysis I have tried for more stringency by specifying the type of inference in each case. Thus, in my coding e.g. *inf/caus* means *causal inference*, whether in the form of presupposition or entailment, as between the underlined segments in the following example:

5. People from the same country often move to the same suburb
- b. and Ø get to know each other.

Size of text units

Halliday and Hasan use orthographic sentences as the text units between which cohesive ties are identified. Enkvist (1974) and Källgren (1979) use

clauses. However, as every reader of student writing knows, both sentence structure and punctuation may be somewhat erratic. Thus neither the sentence nor the clause seem viable units for tracing cohesion and coherence in student essays. Instead I have adopted a unit established by Lieber, called the *functional unit* (*F-unit* for short), which is defined as "the set of clauses and clause equivalents serving an identifiable rhetorical function in written discourse. Objective linguistic criteria used to characterize the F-units differentiate them from similar structures providing restrictive modification or filling an essential syntactic slot in a matrix clause, which do not qualify as F-units." (Lieber 1980:summary:1.)

The objective linguistic criteria are briefly the following: the F-unit can only sort under an S-node or, put another way, it corresponds to the alpha and beta clauses in systemic linguistics. (Lieber 1980:58ff.) Thus, defining relative, temporal, and locative clauses are not considered F-units. The separation of the F-unit should not leave the remaining matrix clause syntactically deficient.

As Lieber shows in her thesis, the segmentation into F-units is not without problems. But for my purpose it is a more practical unit than the proposition would be, because even a short text contains a considerable number of propositions. Thus a whole essay broken down into propositions would soon become quite cumbersome to handle, not to mention a large sample of essays. (The segmentation of text (1) into F-units is shown on p. 80.)

Size of cohesive item

As became clear in the Halliday and Hasan analysis of cohesion in the sample passage (p. 71), their approach was not suitable for getting at the different degrees of coherence in student essays. Partly this was due to their system of cohesive categories, but partly also to their delimitation of cohesive items.

In Källgren's sample analyses (Källgren 1979:83ff., 95ff.) the size of the cohesive items is larger than the one used by Halliday and Hasan. Källgren arranges the items into cohesive chains (strings of semantically re-

lated items, cf. Enkvist 1974, Winburne 1964) and demonstrates the cohesive tightness of texts in this way. However, like Halliday and Hasan she deals with professional, coherent texts. For this study, which is trying to get at the manifestations of different degrees of coherence, the approach proved somewhat misleading. The length of a specific cohesive chain does not by itself necessarily increase coherence. As Lieber has pointed out, you may well get "a collection of ideas, related to some broad inclusive topic — a metatopic — but not necessarily to each other" (Lieber 1980:282f.). Moreover, cohesive chains often overlap, which makes it difficult to count their manifestations and thus to measure their length. (See discussion of the delimitation of cohesive items in Lindeberg 1984:201.)

In my analyses I found that coherence, i.e. the cohesive force, between two units of text (F-units) does not reside in the *number* of cohesive ties between discrete cohesive items in the respective units, but in the *types* of ties obtaining between those cohesive items which have specific roles in the thematic structure. In other words, we have to identify the type of tie between items in theme position, on the one hand, and the type of tie between items in rheme position, on the other hand. More specifically, as will be shown in a sample analysis presently, it is the tie to that part of the rheme which brings *essentially new information* that is vital.

Thematic structure

At this stage I am interested in the linear cohesion of themes and rhemes rather than in a full-scale study of the development of the topic of the essay. Thus I am more concerned with what van Dijk calls *topic of sentence* than with a mapping of how the topics of sentences (themes) relate to the topic of discourse (cf. van Dijk 1977:119).

The term *theme* will be used to refer to the point of departure of the text unit (the clause or the clause equivalent), in other words to the object or concept about which some information is given. (Cf. Daneš 1974:106ff, Lundquist 1983:45.) The *rheme* is defined as that part which provides some information about the theme (cf. Lundquist 1983:45). In the present material the theme mostly coincided with the subject of the clause or the

deleted subject of the clause equivalent. In coherent text the theme usually provides some "given" or "known" information (cf. Daneš 1974:110ff.), thus forming a co-referential or cross-referential link with the preceding text. However, if there is no identifiable link (identifiable in the sense of belonging to one of Källgren's cohesive categories) the reader gets the impression that a new topic has been introduced. Sometimes, though, fronting of the rheme causes the theme to appear in the predicate, as for example, in sentence 2 of the sample on p. 10: "Businessmen, artists and bankers, for example *do so*."

In the material studied for the present paper the rheme usually coincides with the predicate. However, in my analysis I found that such a loose definition of the rheme in practice includes both "given" and "new" information. There may be co-references and/or cross-references from the rheme backwards and forwards, too, e.g. *there* in the sample text on p. 71,S4: "The foreigners often say that *it is really difficult to get to know other foreigners there*." For the purpose of pinpointing the development of the topic the essentially new part of the rheme (which in this example is in italics) seemed vital, and my task after delimiting the essentially new part was to identify the kind of cohesive (semantic) tie it forms with a preceding or a following rheme or theme (not necessarily in the adjacent clause).

Procedure of analysis

Before going on to analyse the sample passage on p.71 I shall briefly summarise the procedure:

- segment the text into F-units (functional units)
- locate the theme and the essentially new part of the rheme
- identify the sentence connector (if any)
- identify the cohesive (semantic) tie between the themes of two consecutive (not necessarily adjacent) F-units, and/or the tie from rheme to theme on theme
- identify the F-role (functional role)

Functional role is a term adopted from Lieber (Lieber 1980). The functional role (*F-role* for short) of a text unit expresses the rhetorical purpose of the F-unit in the discourse. For example, the purpose of the F-role *Assert* is to "make a major assertion about the subject of a following sequence; introduce a new topic or an aspect of a topic which is not covered by a previously stated generalization." Another role of high frequency is *Analyze* (in my study called *Specify*) the purpose of which is to "enumerate the specific facts or details implied or summarized in a previous (...) statement, (...) analyze, enumerate, or introduce component parts of a topic, item, or idea; indicate the means by which something is/was accomplished." Other frequent roles in my material are *Cause*: "identify the cause, reason, or purpose of an event or assertion presented in another F-unit; provide the basis for making a statement or expressing an idea; answer the question Why?", and *Result*: "indicate an effect, outcome, result, or consequence (whether real or hypothetical/conditional)." (Lieber 1980: Appendix C.) For my study I have largely used Lieber's labels, adding a few of my own, like for example *Summarize* and *Generalize*, as I do not think these functions are covered by her *Conclude*.

Lieber's categories are useful as labels for the establishment of coherence patterns in essays. Lieber does not discuss such patterns herself, though she suggests their analysis as a subject for further research (Lieber 1980:272). Lieber is content to identify a functional role for each F-unit, but as it is beyond her purpose she does not go into whether the identified F-role contributes to or disrupts coherence.

A limitation in Lieber's dissertation is the fact that in her sample analyses she does not explicitly state on what linguistic items she bases her attribution of F-roles. In her sample essays she gives the F-roles for each unit and lists the cohesive items she has found, but she does not point to any connection between the two. In my own analysis, and especially with a pedagogic application in mind, I find it necessary to try to pin down the concrete evidence in the text that motivates each decision of F-role. Sometimes it is difficult to assign any role at all, which is symptomatic in itself, and sometimes one F-unit may have several simultaneous F-roles, as for example in the following passage (only the F-units which are relevant for the argument are included):

- (2) 8. The country [England] is dealt into 630 different parts or sections.
 9. From each part only one man or woman is truly elected. (Specify 8)

— — —

19. In Finland we haven't the same system. (Contrast 8-9)
 20. We have several more candidates than in England (Specify 19?/Compare?/Assert)
 b. and we haven't dealt our country into so many sections as they have in England.
 (Specify 19/Contrast 8)
 21. We have here something about 12 sections.
 (Specify 20b/Contrast 8)
 22. 200 Ø are elected. (Specify?/Assert)

This example shows the difficulty the analyst is facing when the inferred truth value of the content and the way it is developed seem to conflict. Inaccurate vocabulary is only part of the problem here. A charitable reader tries to see what the writer intended, but faced with units like (20) and (22) *missing referents* (cf. Wikborg in this volume) make the task impossible. There is no previous mention of the number of candidates in England to which *several more* could establish the cohesive tie of comparison, nor is it clear which referent has been ellipted after *200*. Mostly the nearest referent is looked for, but *sections* does not fit in here at all.

In order to trace the *development of the theme* it is necessary to establish the cohesive ties from the theme part of one F-unit to the theme or rheme part of another unit, either preceding or following or both, as well as the ties between the essentially new parts of the rhemes. The sample text on p.71 will be used to illustrate the procedure.

- (1) 1. People move from their own countries and cities to New York
 b. because they think it is better to live in New York.
 2. Businessmen, artists, dancers and bankers, for example, often do so.
 — — — (paragraph division)
 3. New York is a very big city
 b. and because of that there are people from many countries.

4. **The foreigners** often say that *it is really difficult to get to know other foreigners there.*
- — —

5. **People from the same country** often *move to the same suburb*
b. and $\emptyset$ *get to know each other.*
- — —

6. **Immigrants in New York** think that *the traffic are very lively*
b. and $\emptyset \emptyset$ that New York is *a very dirty city.*
- — —

7. *Many diplomats* live in **New York.**

8. **This city** is really an *international one.*

Legend: theme=**boldface**, new part of rheme=*italics*.

When we trace the thematic links, we see that the passage seems coherent enough, insofar as there exist ties to preceding themes or rhemes, except in the existential F-units. We get the following pattern of cohesive ties:

3. identity with part of the rheme in 1b.
- b. — — —
4. identity by synonymy with rheme in 3b.
5. hyponymy with theme in 4
- b. identity by ellipsis with theme in 5.
6. hyperonymy with theme in 5 via 5b
- b. identity by ellipsis with theme in 6
7. identity with part of rheme in 6b.
8. identity by synonymy with theme in 7

When we examine the linking of the rhemes, however, we find that in many of the instances (F-units 3, 3b, 4, 6, 6b, and 8) it is impossible to establish cohesive ties to preceding themes or rhemes. When this is so, the reader experiences that a new topic has been introduced. In F-unit 5 the new part of the rheme can be seen as a causal inference of the new part of the rheme in F-unit 4, and the same tie pertains between the rhemes in 5b and 5. In F-unit 7 the rheme is fronted, which also makes the reader

register a new topic. When a new topic is introduced, the F-role of the unit is an *Assert*. The F-role pattern of the passage is as follows:

3. ASSERT
- b. *RESULT (DYSFUNCTIONAL)
4. ASSERT (REPORTED)
5. ASSERT/RESULT (4)
- b. RESULT (5)/CAUSE (5)
6. ASSERT (REPORTED)
- b. ASSERT (REPORTED)
7. ASSERT
8. ASSERT

How are the F-roles arrived at? I will briefly illustrate the procedure by analysing the sample passage.

F-unit 3 is an *Assert* because the "new" part of the rheme *very big* shows no identifiable cohesive tie to either themes or rhemes preceding.

F-unit 3b is allegedly a *Result*, signalled by *and because of that*. However, there is no causal relation between *a very big city* and *people from many countries*, as a big city does not necessarily entail internationality. (Cf. for example Peking, which, though very big, is not international.) The sentence connector here is thus plainly misleading, owing to faulty reasoning on the writer's part. The relation between *people from many countries* and *a very big city* is incompatible with the relation signalled by *and because of that*, and this results in a dysfunctional F-role. Interestingly, if the writer had put *and because of that people from many countries (want to) go there* instead of using the existential construction, the sentence would have been all right. It is possible that this is what the writer intended, in fact.

F-unit 4 is a *Reported Assert*. The term is taken from Aston (1977:480) although at this point my term *Assert* covers both his *Assert* and his *Statement*. The essentially new part of the rheme *difficult to get to know other foreigners* shows no identifiable cohesive tie with either themes or rhemes preceding, except by very vague implication.

As *F-unit 5* stands, initially in a new paragraph, with no sentence connector to signal the relation to the previous F-unit, it could be read as

an *Assert*. However, acknowledging the strong causal inference between *difficult to get to know other foreigners* (4) and *move to the same suburb* (5) (rheme to rheme), further strengthened by the causal tie between *move to the same suburb* (5) and *get to know each other* (5b), and acknowledging students' erratic paragraph structure, the F-role *Result* is plausible here. The sentence connector *and* is ambiguous, however, because it could be either the equivalent of *so*, indicating *Result*, or of *in order to*, indicating *Cause* (or purpose, which is coded under *Cause*). It is obvious that this is a case where the intended causal relation should have been made clear by the use of the appropriate sentence connector. *F-unit 5* could have been introduced by *as a result* or *therefore*, and *F-unit 5b* by *in order to*, which would have improved interpretability.

In *F-unit 6* the traffic being lively shows no identifiable cohesive tie to what precedes, and thus introduces a new topic. The rheme *a very dirty city* in *6b* shows no identifiable cohesive tie either, except for a very general implication that very lively traffic may cause pollution of many kinds. If a causal relation had been intended, the more explicit sentence connector *and therefore* would have made the implication clear. As it is, *F-units 6* and *6b* are both *Asserts*.

In *F-unit 7* we get a fronted rheme: *many diplomats* (cf. Enkvist 1977b:3.). "Normal" information structure, old information preceding new (cf. Daneš 1974 and Van de Kopple 1982), would have given *New York is inhabited by many diplomats*. As the *F-unit* stands, the reader experiences the introduction of a new subtopic, although *many diplomats* could perhaps be seen as a hyponym of *people from many countries* in *F-unit 3b*. Still, their relation in the development of the topic is not clearly signalled, which makes the *F-unit* an *Assert*.

No strong causal inference exists between *many diplomats* living in a city and its *international* character (who would call Helsinki a really international city?), and thus no tie stronger than a weak inference is discernible between the rhemes in *F-units 7* and *8*. A weak inference yields the *F-role Assert* for *F-unit 8*.

This passage has of course been picked as an example because it demonstrates flagrantly what fairly frequently occurs in poor essays, namely that the number of *Asserts* dominates at the expense of other *F-roles*,

which express a closer relationship between F-units. Some tentative figures illustrating relations between essay grades and the distribution of F-roles will be offered presently.

Hypotheses

After a comparison of ten good essays with ten poor essays in the above manner, the following tentative claims have emerged for coherence criteria in expository essays:

- for minimal coherence the theme needs to show an identifiable cohesive tie to a previous theme or rheme (unless the F-unit is an existential construction);
- when the number of *Asserts* exceeds a certain proportion for a certain length or type of text, the text is experienced as lacking in coherence (see discussion of Tables and *Assertscope* below);
- for coherent development of the theme, not only must there be a cohesive tie to the theme but the "essentially new" part of the rheme needs to be related to a previous rheme or theme; thus:
 - if the tie is a weak inference or there is no identifiable cohesive tie between the rhemes, the F-role is an *Assert*;
 - if the tie is a strong inference (e.g. causal) or another identifiable cohesive tie (e.g. hyponymy), the F-role corresponds to the tie (and the role indicated by the sentence connector, if present and correctly used);
 - if the cohesive tie to the essentially new part of the rheme is vague and not clarified by a sentence connector, we get an *Assert* (cf. Wikborg on lacking or misleading sentence connectors in this volume).

At a later point it may become necessary to introduce a number of new subcategories, such as *Dysfunctional*, when the truth value of the tie is pragmatically unacceptable or when the sentence connector is misleading, or *Uncertain*, when the F-unit is plainly not an *Assert* but no other role is ascribable with any certainty.

To return to the two observations on coherence by Enkvist quoted on p.73 in this paper, I should like to offer a narrowing down of the definition of coherence for expository essays, on the basis of the hypotheses pre-

sented above. Thus, the minimum number of cross-references between text units (F-units) should be at least two, except for a limited number of F-units that can be Asserts. What the acceptable number of Asserts, or any particular F-roles might be, depends on the type of assignment, and this is one of the areas where more empirical research is definitely needed.

Coherence patterns – preliminary findings

In order to get at the coherence of a text we need to look at the patterns formed by the sequences of F-roles. These patterns will be referred to as *coherence patterns*. Some tentative figures will be offered below on the frequency of certain F-roles in the good essays of my material as compared to those in the poor essays. It is to be remembered that the F-roles reflect a sequence of a minimum of two F-units, since they are always related to an F-unit preceding or following. A computer analysis of the sequencings of F-roles is currently under way, but as often happens in the course of analysis it was found that both methods and categories need further developing. (Cf. discussion below.)

First the data for both essay assignments were treated together, giving the coherence patterns shown in Table 1. The programme will yield more meaningful figures when the two assignments are analysed separately, because different tasks call for different development strategies, and hence different coherence patterns. However, even at this point the findings give evidence of the difficulty that poor writers have in moving between different levels of generality, and in developing a point.

The coherence patterns following *Assert* were picked out experimentally, following the hypothesis presented as a principle in many textbooks on composition, namely that each paragraph should start with a topic sentence (*Assert*). (Cf. however Braddock on placement of topic sentences in professional writing, Braddock 1974.) The most interesting patterns in the table above are those that show a prevalence of *Asserts*, which indicates a very disjointed essay. Thus two *Asserts* following each other are found in only 6 per cent of the good essays but in more than a third of the poor ones. Similarly, none of the good essays contains three *Asserts* in a row, whereas 11 per cent of the poor ones do.

Table 1. Coherence patterns in good essays vs. poor essays¹

F-roles following Assert (pairwise):	Good	Poor
ASSERT-ASSERT	6	35
ASSERT-SPECIFY	29	21
ASSERT-CONTRAST	22	14
ASSERT-CAUSE	15	11
ASSERT-RESULT	6	6
F-roles following Assert (triplets):		
ASSERT-ASSERT-ASSERT	0	11
ASSERT-ASSERT-SPECIFY	0	9
ASSERT-SPECIFY-ASSERT	4	6
ASSERT-SPECIFY-SPECIFY	10	14
ASSERT-CONTRAST-SPECIFY	8	2
ASSERT-CONTRAST-CONTRAST	6	2
ASSERT-SPECIFY-CAUSE	6	2
ASSERT-CAUSE-SPECIFY	6	2

¹ The percentages were calculated of the total number of F-role pairs or triplets whose first member was *Assert*. As the number of possible pairs or triplets was great, only the most frequent patterns have been included here.

Another coherence pattern worth looking at is the sequence *Assert-Specify*, which according to definition should indicate movement between different levels of abstraction, i.e. the development of a point. When only *Assert-Specify* is looked at, the good essays do show a somewhat higher percentage, but it is really only in the triplets that significant figures will come out. However, here the higher figure for the poor essays in the pattern *Assert-Specify-Specify* showed on checking back with the essays that there was something wrong with the categorisation. Thus many poor writers specify the same point twice or more rather than move down in depth. In further analysis a new category *Co-specify*, which shows that the same point is specified as in a previous *Specify*, will have to be introduced. Thus, the amended sequence will read *Assert-Specify-Co-specify* in some instances. Not too many conclusions should be drawn from the table at this early stage.

One interesting concept for the calculation of coherence degree for a text might be to look at *Assertscope*, by which is meant the number of other F-roles per *Assert*. If the other F-roles were correctly used, which is a highly hypothetical assumption, the figures would show the degree of tightness in the development of the essay topic. In the present material the good essays showed an *Assertscope* of 4.9 whereas the poor essays had 3.2.

In Table 2 the data from the two assignments have been analysed separately, although one limitation in the table is that only the most frequent F-roles have been included at this point. (F-roles that occur only once or twice in the corpus have been left out. There are 19 categories of F-roles altogether.) In many studies of student essays a number of different topics are analysed together. However, the difficulties in producing different types of essays vary, and so do the strategies needed. As can be seen from the table below the preference for certain F-roles has a different profile for each assignment.

Table 2. Distribution of F-roles (Percentages)

F-roles	Differences in general elections		Immigrants in New York	
	5 Good Essays	5 Poor Essays	5 Good Essays	5 Poor Essays
ASSERT	13	30	22	32
SPECIFY	41	18	34	32
CONTRAST	28	9	9	10
RESULT	8	1	11	5
CAUSE	4	14	12	12

A large proportion of *Asserts* was typical of the poor writers in both assignments, which helps to explain the disjointed impression created by their essays. Also, looking at the good essays it seems that only a limited number of *Asserts* is acceptable, the number varying according to task: only 13 per cent for the *election* essays vs. 22 per cent for the essays on *immigrants*. This reflects the difference in tasks: in the former assignment a limited number of concepts were to be introduced, and then analysed and contrasted, whereas in the latter assignment a greater number of concepts could be introduced, and then developed briefly.

A similar difference according to task is shown by the distribution of the F-role *Specify*. In the *election* essays the good writers have a much larger number of *Specify*s in proportion to *Assert*s than they have in the essays on *immigrants*. The poor writers, conversely, have a lower incidence of *Specify* in proportion to *Assert* in the *election* essays than they have in the essays on *immigrants*. Again, the surprisingly high number of *Specify* here is partly due to the need to introduce the category *Co-specify* (cf. p.21). Still, even now the figures reflect the poorer ability of weak writers to develop a point.

The essay on elections very clearly asks for a contrast pattern (*Describe some of the differences....*). The good writers have indeed realised this aspect of the topic (29 per cent *Contrasts*) whereas the poor writers have done so to only a minor degree (9 per cent). Surely this reflects a lack of awareness of the rhetorical pattern of contrast, which could be amended by teaching? Deficient signalling and missing referents are only part of the problem.

In the distribution of the F-role *Result* the trend is the same for both assignments. The good writers have a much higher proportion of *Result*, again indicating more development of a point. However, the F-role *Cause*, which also indicates a tighter coherence, is much more frequent in the poor essays on *election* than it is in the good ones. This is one point where the question of relevance comes in (cf. Lindeberg 1984:201f. on relevance and levels of generality). When asked to describe *how* two systems differ, is it relevant (or even possible) to explain *why*, in the scope of a short essay?

Conclusion

In this report I have tried to illustrate a method of analysis which is especially useful when dealing with not quite coherent essays, but also practical for describing merits in good essays. For lack of space I have not exemplified analyses of good essays here, but in these the F-roles are generally much easier to establish.

To summarise: it was found that in order to get at the role of cohesion in coherence it is not enough to count ties using the classic approach of

Halliday and Hasan. A more delicate categorisation of cohesive ties based on semantic relations such as that suggested by Källgren is more rewarding, when tracing the development of content. On the basis of cohesive ties found in the thematic structure it is then possible to arrive at a determination of coherence patterns in terms of categories such as *Assert* and *Specify*, which in turn show correlations with the quality of essays as established by impressionistic grading.

It must be emphasised that the above figures are based on a rather small sample, and that the methods used need developing. However, even at this crude stage there has been a narrowing down of the gap between intuitions of coherent or noncoherent writing and the concrete evidence supplied by a text-linguistic analysis of the text.

There are many factors involved in writing a good expository essay. But what use is the knowledge of facts and the mechanics of language without the awareness of conventions that Shaughnessy called "basic to the student's understanding of his task"? Thus Shaughnessy:

"...the convention of ranging widely but in fairly predictable patterns between concrete and abstract statements, between cases and generalisations; and the convention of explicitly marking the logical and rhetorical relationships between sentences, paragraphs and larger units of composition." (1977:240.)

In pointing at coherence patterns in terms of sequences of functional roles of each text unit, I have tried to get closer to these "fairly predictable patterns", so far not so much for prescriptive as for descriptive reasons, to find more concrete means of describing the patterns, or the lack of them.

It seems clear that not only do EFL students need more training in "explicitly marking the logical and rhetorical relationships between sentences, paragraphs and larger units of composition" by the use of sentence connectors. They must also learn to recognise in what direction they are developing the content and how it can be cohesively linked to what goes before or comes after. One problem for the EFL teacher is that at this point there are no detailed contrastive studies of coherence patterns, although there is a growing awareness that these may be culture-bound. (Cf. Connor and McCagg 1982, Kaplan 1983.)

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TYPES OF COHERENCE BREAKS IN UNIVERSITY STUDENT WRITING

Abstract. The preliminary results of a study of types of coherence breaks in 144 university student essays are presented. The essays were written by students ranging from beginners to graduate students in the fields of Business Administration, History of Literature, English, Law and Journalism at the University of Stockholm. Of the 11 types of coherence breaks listed, the five which to date have turned out to be the most frequent are defined, and then exemplified in an analysis of 27 example texts.

1. Introduction

This paper is a work-in-progress report of an investigation into types of coherence breaks in 144 essays written by students ranging from beginners to graduate students at the University of Stockholm. The essays were taken from the fields of Business Administration, History of Literature, English, Law and Journalism in an attempt to represent as many as possible of the five university faculties. Most of the essays are, therefore, in Swedish.

The study is part of a project entitled *Textstrukturering i utredande och argumenterande prosa: en undersökning av universitetsstuderandes textproduktion (TUAP)*. (Text Structuring in Expository Prose: an Investigation into University Student Writing.) The project is directed by Professor Lennart Björk and financed by the Bank of Sweden's Tercentenary Foundation.

As can be seen from the subject choice, our material excludes writing from the Natural Sciences and Medicine. In the case of the former, the

exclusion seemed obvious, since so much of the line of argument in scientific texts is contained in formulae. As for the School of Medicine, we planned to include case records, the writing of which is practised at several levels of training, but we discovered that not only are such texts too brief, but their organization follows well-established conventions. The writers of case-records are not, therefore, grappling with the same problems of organizing larger thought units as are students in other fields. For these reasons we contented ourselves with material from the three faculties of Law, the Humanities and the Social Sciences.

The material includes graduate as well as undergraduate writing because for some time before the start of the project, we had found an unexpectedly large number of coherence and structuring problems in drafts presented at graduate seminars. We decided, therefore, that in addition to determining which types of coherence break are most frequent in our material, we would also investigate the distribution of coherence breaks per student level covering the whole range from beginners to graduate students. From each of the three fields in which Ph.D theses are written, English, History of Literature, and Business Administration, a total of 32 essays was read, consisting of 8 essays per field from each of the following four levels: 1) 1st-term (20 points) 2) 2nd-term (40 points) 3) 3rd-term (60 points) 4) 4th-term and beyond (graduate level). The graduate level was not represented in Journalism, which does not have a Ph.D program, or in Law, which, we were informed, produces such a very small number of theses that they can hardly be considered representative of the field.

To date, coherence breaks have been diagnosed in the essays written at the departments of English, History of Literature and Business Administration at all four levels, i.e. in 3x32 essays, a total of 96.

2. Types of Coherence Breaks

2.1 Methods of Analysis

The following list of types of coherence breaks is the result of a process of making explicit the intuitive criteria which I use, and presumably many others with me, when assessing the comprehensibility of a piece of student

writing. This process has benefited enormously from the stringency with which text linguists have identified several types of coherence and cohesion.

My analytic method has evolved as follows. I started by reading about 30 essays, and whenever I came across what struck me as a break in the line of reasoning, or as a disturbing factor which made the line of reasoning more difficult to follow, I marked it. I then tried to describe these breaks and disturbing factors, and gradually, as I read more essays, to classify them, as far as possible in terms of the categories used by text linguists. As my material grew, some categories turned out to be less applicable and new ones emerged.

The list below is, then, the result of many adjustments made during the course of my attempts to diagnose the coherence problems I came across. It may well be adjusted again before the final report, which is due to appear in Swedish within the next six months.

Types of Coherence Breaks in Student Writing

I Topic-Structuring Problems

1. Unspecified *topic*.
2. Unjustified *change of/drift* in topic, on account of 7.1 below.
3. Misleading *paragraph division*.
4. *Irrelevance* (in the form of van Dijk's "overcompleteness" (1977:110)).
5. Misleading *disposition*.
6. Misleading *headings*.

II Cohesion Problems

- 7.1 Missing, or insufficient number of, *references to the cohesive chains* which have been established as central *to the topic*;
- 2 Insufficient *number of cohesive chains*.
8. The *distance* between the cohesive items in a chain is too great.
9. *The inference ties are uncertain* because:
 - 1 reference items (e.g. articles, pronouns) lack an unmistakable referent in the text;
 - 2 there is insufficient specification, with the result that a) the tie between two cohesive items is difficult to follow b) there are too many possible interpretations of what such a tie might be.
10. The *type of cohesive tie attempted does not actually hold*.

11. Misleading *information structure*, because of
 - 1 the distribution of *given and new information* within the sentence;
 - 2 missing or misleading *sentence connection*.

2.2 Definitions and Examples

This report will be restricted to the five types of coherence breaks which turned out to be the most frequent in the 96 essays investigated so far. In order of frequency these are nos. 9, 3, 11.2, 2 and 1 in the above list. Indeed together they account for 79.5% of all the coherence breaks diagnosed in this material, i.e. 466 instances out of a total of 561.

The example texts analyzed below have not been changed in any way except for the correction of spelling and elementary grammar mistakes in the English ones. English texts have been used as much as possible. Translations of the texts in Swedish are provided in the appendix.

2.2.1 Uncertain Inference Ties

It has been shown that inexperienced writers tend to forget the needs of their readers. Sandra Perl, for example, says of the students in her study that "they did not see the necessity of making their references explicit, of making the connections among their ideas apparent..." (1979:332). It is not surprising, then, that inference ties which are difficult to follow represent 25.6%, or 144 instances, of the total number of coherence breaks counted.

Of these 144 instances, 36% consist of reference words like *this*, *it*, *the*, *another* which have no clearly identifiable referent in the text (9.1 above). This type of reference is classified as a type of inference because, as Enkvist has pointed out, "we assign referents to shifters such as pronouns through inference rather than by strict syntactic rule" (forthcoming).

The misuse of such "referential inference" (Enkvist's term) may be illustrated in the following excerpt from the first version of a third-term essay, by the occurrence of *this* at the beginning of the second paragraph (italicized).

- (1) The novel is divided into three sections: Mosque, Cave and Temple. To Forster these represent Cold Weather, Hot Weather and the Rains. As John Colmer says: "At the same time, each of these three parts has a theme, a tone, an atmosphere of its own, while contributing to the whole structure. Other interpretations have been offered from time to time, such as the triple division: emotion, reason, love".

This has given me the impulse to depict the relation between Fielding and Aziz in terms of the Seasons....

This probably refers to "the triple division" in the previous sentence. But it is not clear whether this referent is restricted to "cold weather, hot weather and the rains", or whether it includes also the other specifications of the tri-partite division mentioned, namely "mosque, cave, temple," "emotion, reason, love" as well as, perhaps, their attributes as enumerated in the quotation, "theme, tone, atmosphere." We cannot be sure, in other words, how extensive the referent of *this* is intended to be.

Missing or uncertain referents for articles and pronouns constitute a cohesion problem which is familiar to teachers of composition at all levels (see, for example, Lieber 1980:211-24). As may be expected, then, about two thirds of the reference items included under 9.1 in my list consist of articles and demonstrative pronouns. The remainder are words like *both*, *the above-mentioned*, *other* (as in "another example is..."), *such*, and *further* (as in "such a definition needs further elaboration..."). Most of these belong to Halliday and Hasan's classes of demonstrative and comparative reference (1976: 57, 76-88). In some instances, however, as Tommola has pointed out, it can be difficult to determine "whether one is dealing with reference or connection" (1982:71). In order to circumvent such classification problems in the final report I shall provide a complete list of all the "reference items" included under 9.1.

The second type of inference problem identified in the list under 9.2 (insufficient specification) constitutes 64% of the total number of uncertain inference ties counted. Let us look at an example paragraph from a first-term essay dealing with school problems:

- (2) 1) Children nowadays are more unconcentrated for different reasons than they were. 2) Many teachers hesitate to teach the beginners because it is such hard work, with the result that unexamined teachers

have to be employed. 3) Of course the change of many teachers during the first important years will have an influence on the work in school.

School problems appear most clearly during the "högstadium" time...

Inferencing has been described as a process of solving a "bridging" or "discontinuity" problem (de Beaugrande and Dressler 1981:101). In well-formed texts, bridging problems are usually solved with very little effort. In impaired texts, however, the reader will often have to work much harder, and may indeed end up with several alternative interpretative hypotheses. The main discontinuity problem in (2), for example, lies in the relation between the first and second sentences (S1 and S2). For, S2 — the fact that many teachers hesitate to teach beginners — can be seen as a result of S1, i.e. of the fact that "children nowadays are more unconcentrated," or else it can be interpreted as the introduction of a new and different school problem.

The information provided in the third sentence complicates matters still more. For if "the change of many teachers... will have an influence on the work at school," it is possible that the writer intends the fact that so many children are being taught by "unexamined teachers" (S2) to be an *explanation* of the inability of children to concentrate (S1). Thus, because the writer's exact meaning is not specified, the reader is forced to choose between several mutually exclusive interpretations of the function of S2. That is, it could either be the *result* of the fact mentioned in S1 or it could be an *explanation* of that fact, or it could be intended as an *assertion* of a new fact.

It is the competition between such alternative possibilities that makes inference ties in student essays particularly problematic. In these essays there is, however, a scale of recoverability ranging from the most to the least easily recoverable type. The most recoverable types involve either selecting the most likely of two alternatives or, after an extra decoding effort, perceiving that there is actually only one likely interpretation. An example of the latter is to be found in the following paragraph.

(3) 1) School problems appear most clearly during the "högstadium" time.

2) On reason is, of course, that the pupils are in puberty which has an

effect on school work. 3) Another reason is that the "högstadium" in many respects is like a grammar school with that distinction that is compulsory.

In defence of today's school system you can say...

S3 does not specify what the grammar school features of a "högstadium" are that might cause school problems. The reader must thus think for a moment in order to decide what these are likely to be. It is the duty of a writer to spare a reader this kind of effort. But once it has been made, it is not difficult to see that the grammar school features the writer probably had in mind are the demanding intellectual standards of that type of school.

At the opposite pole of the recoverability scale are those inference ties that are so unspecified as to be extremely difficult to follow. In such cases the reader must simply speculate on what the writer could have had in mind, and the more alternatives he comes up with, the more uncertain his reading will be. This type of inference problem is illustrated in the final paragraph of the following first-term essay. The purpose of the essay is to discuss the main character of the film "An Officer and a Gentleman" as an illustration of unhappy childhood. The last two paragraphs out of a total of four are reproduced below.

(4) *Unhappy Childhood Now and Then*

....
1) Due to the facts about Zack's background, he was going to have many difficulties to cope with in life. 2) His parents would never listen to him. 3) They would never think he could do anything. 4) Consequently this was going to spoil his life. 5) Obviously parents who treat their children that way should not be considered parents at all. 6) However, Zack is going to train for the army and that is his only hope.

7) Finally, I should like to say that many things can be done to prevent these kinds of problems, by information and some good advice passed on to parents in general. 8) Admittedly it should be mentioned that this film, as most American films, had a happy ending, he succeeded in the army

Reconstructing the inference tie between the two sentences of the final paragraph is a real challenge. What is the nature of the adversative signalled by *admittedly*? And what is it a contrast to? One possibility is that the

information of S8 is intended to contrast with "many things can be done to prevent these kinds of problems" in S7. In that case the missing link might consist of some such statements as 'if the film had ended unhappily instead of happily, it would have pointed a moral and thus served the purpose of educating misguided parents'.

An alternative reading might see the last sentence as a form of rounding off, of saying something that will end the essay without much regard for precise connections with what comes before. Or perhaps S8 is really a continuation of the thought expressed in S6? In this view, the student would not really intend the adversative relation expressed by *admittedly*, which would then be omitted.

It is impossible to decide which of these, or other possible interpretations, is the most likely one. When a reader is reduced to guessing in this manner, he usually gives up the effort of trying to make sense of the text.

2.2.2 *Misleading Paragraph Division*

The second most frequent type of coherence break, accounting for 19.6%, or 110 instances of the total, is a topic-structuring problem. That is, when students' use of paragraph division to group their subject matter into units was experienced as unsatisfactory, it was found that such use ran counter to other topic-structuring signals.

Our formalized understanding of the factors that motivate paragraphing decisions is in its infancy. The task of setting up criteria to distinguish between acceptable and unacceptable paragraphing is thus, at this stage, truly daunting. It is complicated, first of all, by the fact that the conventions vary from genre to genre. Secondly, even within the same genre, these conventions are only partly logical; they are determined also by considerations of lay-out, register and such rhetorical effects as personal tone, emphasis and rhythm. (For discussions of these factors, and of the theoretical problems they create, see Rodgers (1966), *Symposium on the Paragraph* (1966), Braddock (1974), Stern (1976) and Brown and Yule (1983:95-100).)

The range of acceptable paragraphing alternatives is thus very wide. But it is not unlimited. Our intuitions tell us (and are confirmed by such

experiments as those carried out by Koen, Becker and Young (1969)) that there are constraints on paragraph formation, which lead us to reject certain types as dysfunctional. Although these constraints have not yet been formally identified, it seems clear that unless we perceive a rhetorical or lay-out reason for departing from the norm, we expect paragraph breaks to signal a change of topic or aspect of topic.

The crux of the issue is to make the concept *topic* (or *subtopic*) as precise as possible; for as Brown and Yule have pointed out, *topic* is "the most frequently used, unexplained, term in the analysis of discourse" (1983:70). They themselves make several useful distinctions to which I shall return in 2.2.4. In the absence of an operational definition, however, it seemed most practical to start by identifying topic units in a number of particular instances of both representative and border-line cases and making explicit the grounds for making such an identification. This procedure is illustrated in the analyses that follow.

The importance of the contribution which paragraphing makes to the structure of a text varies considerably. In some cases it merely adds a finishing touch to a structure which is communicated primarily by other means. In the absence of such alternative structuring devices, however, paragraph divisions function as central topic-shift markers, so that if they are removed, the coherence of the passage is seriously impaired. Let us look at some examples.

To start with the former case, the original four paragraph divisions in the following excerpt from Bertrand Russell's *Autobiography* have been removed in order to emphasize the powerful structuring function of (a) the metatextual pointers (bold type) and (b) the cohesive ties established by repetition within the central cohesive chains (italicised).

- (5) **Three passions**, simple but overwhelmingly strong, have governed *my life*: the longing for love, the search for knowledge, and unbearable pity for the suffering of mankind. These *passions*, like great winds, have blown me hither and thither, in a wayward course, over a deep ocean of anguish, reaching to the very verge of despair. I have *sought love*, *first*, because it brings ecstasy — ecstasy so great that I would often have sacrificed all the rest of my life for a few hours of this joy. I have *sought* it, *next*, because it relieves loneliness — that terrible loneliness in which one shivering consciousness looks over the rim of the world into the

cold unfathomable lifeless abyss. I have *sought* it, finally, because in the union of *love* I have seen, in a mystic miniature, the prefiguring vision of the heaven that saints and poets have imagined. This is what I *sought*, and though it might seem too good for human life, this is what at last — I have found. With equal *passion* I have *sought* knowledge. I have wished to understand the hearts of men. I have wished to know why the stars shine. And I have tried to apprehend the Pythagorean power by which number holds sway above the flux. A little of this, but not much, I have achieved. *Love* and *knowledge*, so far as they were possible, led upward toward the heavens. But always *pity* brought me back to earth. Echoes of cries of pain reverberate in my heart. Children in famine, victims tortured by oppressors, helpless old people a hated burden to their sons, and the whole world of loneliness, poverty, and pain make a mockery of what human life should be. I long to alleviate the evil, but I cannot, and I too suffer. This has been *my life*. I have found it worth living, and would gladly live it again if the chance were offered me.

The devices marked above are, in turn, supported by others. But the first sentence alone, by announcing the three topics to be developed successively, so clearly marks out the topic units (or subtopics) of the passage that it becomes less important to give them the additional support of paragraph division in the text that follows.¹

The situation in the second paragraph of the next example is quite different.

(6) *A car of one's own — or public transport*

....

The advantages of having a car of one's own are easy to see. You travel smoothly from door to door and you are free to go anywhere at any time and almost always faster and more comfortably than by bus or by train. And of course it is very practical when you go shopping — many parcels and bags that would cause trouble on buses and trains are easily transported in a car.

However, few people nowadays disregard the problems created by the increasing number of private cars. The noise from the traffic can be unbearable for people living in a town centre or along streets with heavy traffic. Air-pollution is to a very large extent caused by cars. It is a direct and serious threat to the health of inhabitants of cities but it is also dangerous in a more insidious way when fields near the major

roads in the country are polluted with the result that poisonous stuff ends up in our food. The most conspicuous disadvantage of being a car-owner though is obviously the high costs connected with it. Motor-tax and insurance premiums are high and the high price of petrol will surely rise in the future as the shortage becomes worse.

In the second paragraph of this passage the penultimate sentence ("the most conspicuous disadvantage...") moves from threats to the public good, i.e. noise and air pollution, back to the type of private consideration discussed in the first paragraph. This distinction between the public and private arguments against cars is too great for *though* to function as a sufficiently strong contrast marker. There is a topic-shift here, in other words, that needs to be marked by a paragraph break. This is especially true because *problems* in the first sentence of the paragraph could, at first sight, be perceived as a superordinate term including the concept of *disadvantages* as well as *noise* and *pollution*, in the sense that both *problems* and *disadvantages* constitute negative features of cars. The absence of a paragraph break, therefore, obscures the far more important distinction between the two — a distinction that instead needs setting off.

Another solution would be to use the type of structuring device we observed in the Russell passage (5) in this text as well. If, for example, the paragraph started with a sentence like, "However, the advantages of car-ownership are dearly paid for by both the individual and the community," the distinction blurred in the original version would be made explicit. The same paragraph could then deal first with individual, then public costs. But it is precisely in the absence of such alternative structuring signals that paragraph division takes on its role of central topic-shift marker.

An attempt to make explicit the set of criteria which I applied intuitively to student paragraphing problems follows below.

A paragraphing decision is classified as misleading under either of two conditions: either there is a change of topic or topic aspect within the orthographic paragraph, or there is a change of orthographic paragraph without a corresponding change of subject or subject aspect. I shall discuss these conditions one by one.

2.2.2.1 Condition One. There is a change of topic or topic aspect within the orthographic paragraph.

Text (6) illustrated a change of topic aspect that required signalling by a paragraph break. The final paragraph of Text (7) below illustrates not only a change of topic, but also a shift in the level of generality from the more particular to the more general. This makes it an unusually clear-cut case of the need for a new paragraph.²

(7) *Immigration*

....
In the 70s this immigration was over because of the economic crisis in Sweden. Now only political refugees were accepted in Sweden. These refugees came from for example South America. Of course this group is a very heterogeneous group. The refugees from Chile are mostly intellectuals and those from for example Bolivia are mostly illiterates.

1) The immigration has created a new situation in Sweden. 2) Sweden is now a multicultural country. 3) The authorities now have realized that the key isn't assimilation but integration. 4) It's important for people to keep their own culture. 5) The language is a great part of this. 6) It is very important that the children become bilingual not "semi"-lingual. 7) But how to manage that's the question. 8) The most important of everything is that you consider each immigrant as an individual not as a member of the homogeneous group immigrants. 9) Because their backgrounds are often very different.

At a first reading, it seems clear that there is a definite change of topic from the issue of language in S5 and S6 to the importance of treating immigrants as individuals in S8 and S9. *How to manage* in S7 refers in this reading to the problem of "semi" lingualism. A second reading of S7, which is complicated by the unspecified reference of *manage*, makes it likely, however, that *manage* refers rather to the more inclusive set of problems referred to by *integration* in S3 and *keep their own culture* in S4. It is also likely that S7 refers back to, and summarizes the point made in the first paragraph about the heterogeneity of immigrants as a group. In this case, Ss 7-9 are actually intended to function as a generalizing conclusion. But without a lot of uncalled-for effort, a reader will not perceive this unless these sentences are set off from the rest of the text by a new paragraph. (Of course other repairs are also necessary.)

I should like now to discuss a less obvious example of the need for a paragraph break since, of course, many cases of student paragraphing are of this kind. This does not mean that my intuitive perception of the desirability of a break was any the less swift or certain. It means rather that the explanation of my intuition is less self-evident due to a conflict in the text between those semantic features which suggest that there is no topic-shift, and those that indicate that there is. Thus the problem is whether similarity or difference should take precedence.

Text (8) is an excerpt from a first-term assignment at the School of Journalism, in which the entering students were asked to do a write-up of an interview with a class-mate.

(8) Bland de länder han som vuxen besökt fascinerar honom Filippinerna och Vietnam mest. Han anser att människorna där äger en inre stolthet och en vördnad för individualiteten hos människan. Enligt NN saknas detta i stor utsträckning i Europa. På Filippinerna deltog NN i inspelningen av filmen *Apocalypse Now*, bl.a. som statist. Detta gav honom möjlighet att förlänga vistelsen i Asien.

1) Vid återkomsten tog han upp studierna, nationalekonomi under två perioder och däremellan nusvenska. 2) När jag träffar NN befinner vi oss i uppehållsrummet på Journalisthögskolan i Stockholm. 3) Han säger att det känns skönt att han äntligen har bestämt sig för att studera till journalist.

4) Han berättar att han har lite erfarenhet av yrket eftersom han har skrivit artiklar om sina resor. 5) Några av dessa har han fått publicerade men de flesta har blivit refuserade. 6) Han tror sig känna till frilansjournalistens hårda villkor. 7) För att lyckas som en sådan måste man ideligen komma med nya idéer och skriva om nya exklusiva områden.

I identified S2 in the middle paragraph as the beginning of a new subject, despite the fact that it functions as mere background to the information provided in S3, namely that the interviewee is studying journalism, and that his studies have already been established as the subject of the paragraph in S1. I did so because, in my reading, the change from the student's past to his present, which is indicated also by the change of tense, outweighs the cohesiveness of the *study* chain, and therefore constitutes a topic-shift. Indeed the time change, which marks the transition from the story of his past to the story of his present, establishes such a strong

cohesiveness of its own that the boundary between paragraphs 2 and 3 could well be dispensed with. If so, Ss 4-7 would follow on directly from S3 as a specification of the reason why he was finally able to settle on journalism as the subject he really wanted to study. Another reason why the time change outweighs the lack of a topic change is that the text's genre at this point is narrative rather than expository.

There are two exceptions to Condition One as formulated above. That is, a change of topic within a paragraph is perfectly acceptable when such a change is:

a) announced at its beginning

(e.g. There are both advantages and disadvantages to having a car; This problem has two main aspects.) The "three passions" opening sentence in the Russell excerpt (5) is an example of this structural device.

b) signalled by topic-shift markers in the text which make it clear that several subjects are being dealt with in the same paragraph, i.e.

(i) enumerative sentence connectors (e.g. *first, second, then, next, finally*). For this useful class of sentence connectors, see Lundquist (1980:49-51)).

(ii) explicit contrast markers (e.g. A different aspect of this issue is...; Apart from this consideration, there is also...; A contrasting point of view, however, is...)

These two exceptions apply on condition that:

A. the paragraph does not extend beyond the limit of one standard type-written page (300 words).

There is no doubt that this cut-off point is arbitrary. But it approximates the upper limit to the information I found myself able to hold in my mind at once, and thus perceive as one topic. Indeed such a high upper limit is only applicable to texts which are exceptionally well-structured by other means as well. (Again, the adapted Russell passage (5) may serve as an example.)

B. one of the topics dealt with in the paragraph is not developed so much more than others that, as van Dijk puts it (1977:139), "it acquires independent topical character".

If, for instance, a generalization is supported by two examples within a given paragraph, and the second is described in far more detail than the

first, it will overshadow the importance of the first example. By virtue of its prominence, it will take on the status of a topic of its own, and therefore require a paragraph of its own too.

The essays investigated so far have not yielded a clear-cut example of this phenomenon. But as it is a common cause of a paragraph break in well-formed texts, it is likely to be applicable to other student essays, if not to the rest of the material I have.

2.2.2.2 Condition Two. There is a change of orthographic paragraph without a corresponding change of subject or subject aspect.

Paragraph breaks are experienced as particularly unjustified when they separate one or two sentences from a preceding paragraph, which contains statements at a higher level of generality, and of which they are a specification. Text (9) will illustrate this:

(9) *The Functions of a University*

....
1) The second point is education. 2) The university helps us to go from darkness to light. 3) It is the place where we can have a general education in among others, history, geography or languages. 4) And we know that a wide culture helps us to better understand the meaning of the world and our own problems.

5) After this we realize our role as men and women and we can fight the negative aspects of mankind.

6) We need universities to train for professions...

Sentences 4 and 5 are both specifications of the general point made in S2, "the university helps us to go from darkness to light." Indeed it is also possible to read S5 as a specification of, and therefore as being at a lower level of generality than, S4. In either case, however, there is no change of subject or subject aspect, and so the paragraph break, which leads us to expect one, is misleading.

This type of paragraph structure can also be seen in the following excerpts from a first-term essay in Business Administration.

Gramskap 90

(10) 1) Ett problemområde som också ligger till grund för grannskapscentralerna är den dåliga rekryteringen av handikappade på arbetsmarknaden.

2) Grannskapscentralen kan leda till möjligheter för dem att komma ut i arbetslivet.

(11) Idag har dock den tekniska utvecklingen kommit ikapp på tele/datateknikens område.

2) I fältförsöket ska man i full skala pröva en ny form av arbetsplats, en grannskapscentral som utrustas med de senaste hjälpmedel på tele/data kommunikationsområdet.

3) Ett antal anställda, boende i Nykvarn ska på det här viset få möjlighet att sköta sina jobb på en arbetsplats nära hemmet och på distans till sina arbetsgivare.

In Text (10), the use of the pronoun *dem* in S2 to refer to *handikappade* is in itself an indication of the fact that S2 is an integral part of the argument started in S1. S1 states the problem; S2 a possible solution.

In a longer text, of course, the disinction between problem and solution might well initiate a paragraph break. But when a point is made as briefly as this, it becomes one in a series of other points, and so paragraph divisions are needed to signal the shifts from one of these points to the next. The paragraphing of Text (10) is, therefore, misleading.

Similarly, the three sentences of Text (11) all form a single topic.. S1 states the reason why, as stated in S2, a new type of technically well-equipped workplace can be tried, while S3 states the opportunity made possible by the innovation.

Condition Two also has its exceptions. A paragraph break without a corresponding topic-shift has been classified as acceptable when:

- a) it is announced by a contrastive sentence connector such as *but* or *however*.
- b) It marks a summarizing conclusion drawn from facts provided in the immediately preceding paragraphs.

These conditions are illustrated in the second and third paragraphs respectively, of the following research level Business Administration text.

(12) *Kooperationens personella resurser*

....

1) I slutet på 30-talet, som ung försäkringstjänsteman, förvånades jag över att arbetsledningen tog så litet vara på arbetsglädjen, stoltheten över att behärska sitt arbete, solidariteten med företaget som jag såg runt omkring mig.

2) Det var dock inte förrän i mitten på 60-talet som jag på allvar fick upp ögonen för det oerhörda slöseri det måste innebära att inte ta vara på dessa människors inneboende egenskaper.

3) Det gick alltså mycket lång tid mellan varseblivande av företeelsen och medvetenhet om dess konsekvenser.

"Dessa människors inneboende egenskaper" in paragraph 2 is the superordinate of "arbetsglädjen, stoltheten... solidariteten... som jag såg runt omkring mig" in paragraph 1. There is, therefore, no topic-shift between the two paragraphs. Still, there is the contrastive *dock* at the beginning of paragraph 2, which in this case marks the time change from the 30s to the 60s, as well as the movement from the particular (*arbetsglädjen* etc.) to the general (*egenskaper*).

In paragraph 3, the *alltså* makes it clear that the function of this sentence is to draw a summarizing conclusion from the time lapse described earlier.

A conclusion drawn from facts presented in a previous paragraph is to be observed also in the second paragraph of Text (13). (These paragraphs are the beginning of the interview assignment at the School of Journalism excerpted above in Text (8).)

(13) Han tycker om att umgås med folk men sitter gärna ensam hemma. Han känner sig lite osäker men anser att han har en ganska stor kapacitet.

Så motsägelsefullt blir det om man ska försöka beskriva NN, 27 år och nybliven journaliststuderande.

The rhetorical pattern of Text (13) (i.e., the initial presentation of facts followed by a comment on them) and its accompanying paragraph structure are common journalistic conventions. It is particularly interesting,

therefore, that compared to English or History of Literature, the Business Administration essays at all levels have a far greater number of one or two sentence paragraphs, suggesting a possible influence from journalism. Text (12) is typical in this respect. Indeed, it is because its paragraphing principles are so widespread in journalism and, possibly, Business Administration reports, that I found it necessary to devise the above exceptions to Condition II. Otherwise my own sense of appropriate paragraphing would have led me to make one paragraph out of the three in Text (12), and to diagnose a differing convention as a mistake.

2.2.3 Missing or Misleading Sentence Connection

The category of misleading information structure, no. 11 in the list of types of coherence break on p. 2 above, represents 13.3% or 75 instances of the total. Of this category, 88% (66 instances) consists of the non-use or misuse of sentence connectors (11.2 on the list). It is this sub-group that I shall deal with here.

Sentence connectors include all those devices which, to quote Halliday and Hasan, specify "the way in which what is to follow is systematically connected to what has gone before" (1976:227). They range from conjunctions (e.g. *however, in addition, therefore, as a result*) and adverbs (e.g. *first, in conclusion, previously*) to whole propositions (e.g. *as was defined above, this is because...*), which function as macroreferences.

Text linguists have classified sentence connectors according to the semantic relations they express. Halliday and Hasan make use of four basic types: additive, adversative, causal and temporal (ch. 5). Others, such as Enkvist (1974:191-95), Källgren (1979:87-92) and Lundquist (1980:50-51) base their categories on finer distinctions. They all make the point, however, that sentence connections need not be signalled explicitly. (See also Dressler (1972:71) and Tammola (1982:69-70).) Indeed Lundquist makes a tentative case for classifying sentence connectors as pragmatic rather than semantic links on the ground, first, that they are particularly characteristic of argument texts (1980:53), and second, that they are semantically redundant: "les connecteurs sont à considérer comme... des éléments qui n'apportent pas d'information nouvelle, ou en apportent peu" (52, 82).

There is no doubt that in well-formed texts, the cohesive ties of, for example, contrast, synonymy, hyponymy and even inference are often so clear that sentence connectors simply give the emphasis of explicitness to what is conveyed implicitly, as in *In June we can eat outdoors (but) in September it is already too cold*. In some cases, however, the cohesive ties between two propositions are so minimal that the sentence connector becomes the primary indicator of the relationship between them. In his discussion of how we assign functions, or what he calls "illocutionary value" to statements which lack such cohesive ties, Widdowson gives a good example (1978:30-31):

- (14) The committee decided to continue with its arrangements. Morgan left London on the midnight train.

As Widdowson points out, if we wish to relate these two statements, there are several possibilities. If we insert a *however* in S2, we assign to it the function of a contrast of some kind, which enables us to infer, say, that the committee's arrangements should have prevented Morgan's departure, but that he left anyway. S2 could also be interpreted as a logical conclusion drawn from S1. A *therefore* would then transform Morgan's departure into an act of cooperation with rather than defiance of the committee. Whatever the interpretation, it is clear that it is the sentence connector in this case, that communicates the intended relationship between the two sentences.

In 'pure' form, this example illustrates the ambiguities and uncertainties that arise in student texts when the semantic links between propositions are weak or non-existent. In such cases it is essential that logical relationships be explicitly signalled by sentence connectors, as in Text (15)

- (15) *Future Society*

1) The Proles in 1984 are given a certain amount of freedom because they are not dangerous. 2) They are fed with the lowest forms of commercial trash. 3) The party takes care not to educate them or to give them anything of good quality. 4) They are given excitement and entertainment and are pacified that way.

There is no other truth but the truth the party dictates...

The relation between S1 and S2-4 is here unspecified. As a result, the paragraph as a whole presents us with two unrelated facts about the proles, namely: they are given a certain amount of freedom because they are not dangerous, and they are kept uneducated and pacified by trashy entertainment. That is, neither the *freedom* nor the *not dangerous* chain in the first sentence is repeated in the following ones. Now, a set of miscellaneous facts about a given subject is a perfectly acceptable form of organization in some contexts. (See, for example p. 117 in section 2.2.4 below.) But in this case, it seems likely that a closer relation between S1 and S2-4 is intended. One such possible relation is that of cause — the proles are not dangerous *because* they "are fed with the lowest forms of commercial trash" and *because* "the party takes care not to educate them". The insertion before S2 of *they are not dangerous because...* thus transforms the degree of coherence in the paragraph.

It has been pointed out that the cause-result connection is more frequently expressed by such implicit means as semantic linking (Kallgren: 87, 89) and sentence ordering (van Dijk: 105-06) than by explicit signaling. But this rule applies only to unambiguous texts. As soon as a relation between two propositions is open to several interpretations, the cause-result relation too will need to be specified. Text (2), which was previously discussed on pp. 97-98, is an example of a case where two possible interpretations are directly opposed to each other. These are indicated by the two alternative sentence connectors that have been inserted before S2 in square brackets.

- (2) 1) Children nowadays are more unconcentrated for different reasons than they were. 2) [So, One of the reasons is that] many teachers hesitate to teach the beginners because it is such hard work, with the result that unexamined teachers have to be employed. 3) Of course the change of many teachers during the first important years will have an influence on the work in school.

In most of the instances of missing sentence connection diagnosed, however, the connectors were needed not to resolve ambiguities but to save readers the effort of having to work out logical relations for themselves. The following passage, the conclusion of a first-term Business Administration essay, provides two examples:

(16) *Gruppens allmänna synpunkter*

1) Man skulle behöva mera underlag för att bedöma de samhälls-ekonomiska aspekterna på F:a Läs och Tångers flyttning till Bräcke kommun. 2) Flyttningen uppfyller kravet på urbanisering och netto effekten blir 222 nya arbetsplatser inom en treårsperiod.

3) Vi anser också att kommunen inte får låta sig pressas av företaget att ställa upp med för mycket för att företaget skall flytta dit. 4) Kommunen skall göra en samhällsekonomisk kalkyl på detta så att det inte "kostar mer än det smakar". 5) Detta gäller även andra myndigheter.

6) Kommunen och de övriga myndigheterna bör skaffa sig någon form av insyn i företaget så att de kan tillgodose de samhälliga intressena.

7) Samhället bör göra en kalkyl och se vad får samhället och vad ger samhället.

In the first paragraph, the relation between S1 and S2 must be one of contrast, the sense being that although the company's move provides 222 new jobs, more information is needed before a decision on its beneficial effects can be reached. If this contrast is to be perceived quickly and easily, however, the adversative relation needs to be made explicit. The insertion of *men* (but) or *dock* (nevertheless) would do this.

Similarly if we are to see S7 as the final conclusion of this passage rather than a mere repetition of the information given in S4, we need an explicit summative such as *således* or *alltså* (therefore): "Samhället bör alltså göra en kalkyl..."

Of the 66 instances of this category of coherence break, 37 or 56% consist of missing sentence connectors. 24 instances (36%) are sentence connectors which are used wrongly, and are thus misleading. That is, the logical relation which they express is different from the logical relation established by the cohesive ties. (Cf. Lieber (1980:166-67) and Lindeberg's discussion in this volume.) Most of these misleading sentence connectors are additives and adversatives which have been misapplied.

In the English texts one might expect that the writer in some cases has simply misunderstood the meaning of the connector used. But, as the use of *however* in Text (17) shows, this is not so. (The passage is from a graduate level essay, which was later published.)

(17) *The Scandinavian Element in the Orkney and Shetland Dialects*

....

1) Before going into the presentation and analysis of my results it is necessary to point out the following: first, since my essay uses material from two investigations (LAS vol. 1-2) with different contents it was most convenient to treat the two volumes separately when studying various variables. 2) In some cases the results of the two volumes agree, but in others they are incongruous, which has caused difficulties when interpreting the results. 3) It has not been feasible, however, to bring the results of the two volumes together for LAS as a whole. Second, two types of tables will be used:....

In S3 *therefore* would be more appropriate than *however*, since the fact that "it has not been feasible to bring the results of the two volumes together" is the result of their "different contents" (S1) and their "incongruous results", which "caused difficulties" (S2). Of course the *however* refers back to the fact that "in some cases the results of the two volumes agree" (S2), but this is the only contrastive feature of the text, and as such, it is outweighed by the more numerous causal/explanatory elements enumerated above.

Text (18), an earlier and therefore slightly different version of Text (4), illustrates the use of an additive of which the function is unclear:

- (18) 1) School problems appear most clearly during the "högstadium" time. 2) One reason is that the pupils are in the puberty, which has an effect on school work. 3) The "högstadium" is also in many respects like the grammar school with that distinction that everybody has to go there. 4) Most pupils choose a foreign language as their optional subject instead of a practical one owing to their own or their parents' ambition.

The connection between S3 and the *school problems* announced as the subject in S1 is unspecified. As a result our perception of what features the *also* in S3 is supposed to be joining is hampered as well. Indeed, as it stands, S3 in combination with S4 would be interpreted as a change of subject, which further complicates our apprehension of the common elements signalled by *also*.

The revised version of this text replaced *also* with *another reason*. S3 then read, "Another reason is that the "högstadium" in many respects is

like a grammar school..." By making the intended sense of the additive more precise, this revision clarifies the explanatory function of S3 and so, even in the absence of further revision, rules out the possibility that S3 is the start of a new subject.

2.2.4 *Unspecified Topic*

The fourth most frequent type of coherence break is the category of unjustified topic changes (no. 2 on the list; 67 instances, 11.9% of the total). Next in order of frequency is the closely related problem of the unspecified topic (no. 1 on the list; 50 instances, 8.9% of the total). I shall deal with this problem first since the inability to make one's topic clear often gives rise to puzzling topic changes as well.

As Brown and Yule have pointed out, the concept of a *topic* has been bedevilled by a fair amount of terminological confusion. There is a need, first of all, to distinguish between sentence topics and discourse topics. There are many reasons for this, as they show; but one important one is that sentence topics are used to refer to noun phrases only, while discourse topics are most usefully defined in terms of whole propositions (1983:70-71). Brown and Yule use the term *topic entity* for a noun phrase (e.g. Jack), and reserve the term *topic* for a proposition (e.g. Jack goes up the beanstalk). In their application of the term *topic*, it is clear, however, that in at least some cases, *topic* refers to a proposition which summarizes, or is at a higher level of generality than, a set of other propositions. In their main illustration, an obituary, they emphasize the usefulness of their distinction between *topic* and *topic entity* by identifying as *topic entity*, the subject of an obituary, X, and arguing that the *topic* is "more adequately characterized... as 'an appreciation of the noteworthy events and deeds in the life of X'" (1983:138).

But it is van Dijk who has most explicitly defined discourse topic in terms of a high order of generality: "a concept or a conceptual structure (a proposition) may become a discourse topic if it *hierarchically organizes* the conceptual (propositional) structure of the sequence" (1977:133-34. cf 1980:93). He even goes so far as to say that our ability to summarize texts "provides us with an *empirical* decision procedure for judgements about

the textual character of discourses. If a sequence of sentences cannot be summarized it is likely that it does not have a macrostructure so that the sequence does not have discourse character" (1977:157, cf. 1980:43).

Since van Dijk's position has useful implications for the study of coherence in impaired texts, I would like to preface my analysis of student excerpts by examining the following constructed example:

- (19) Stockholm is built on a series of islands. Stockholm has more people from Norrland than Norrland itself has. Stockholm has a serious drug problem. Stockholm is a beautiful city. In center city the number of offices far exceeds the number of apartments.

Text (19) was constructed in order to illustrate van Dijk's point: the facts it enumerates are too unrelated for us to be able to summarize it, and so its "discourse character" is questionable.

Of course, it is more coherent than a text like:

- (20) Stockholm has a well-developed subway system. My youngest son is two years old. Burns wrote many kinds of poetry.

This is because the sentences of Text (19) share the same topic entity (Stockholm) while the sentences of Text (20) each have a different one. But what Text (19) makes clear is that, although a shared topic entity may be a necessary condition of coherence, it is not a sufficient one. This means that a sequence of sentences does not have discourse character unless the propositions it expresses are perceived as being subordinate to a larger or governing one.

That such topic subordination and development may be minimal is illustrated in the next constructed text.

- (21) 1) Stockholm has more people from Norrland than Norrland itself does. It has sizable colonies of Finns, Turks and Greeks.
2) Stockholm is a beautiful city. It is built on a series of islands.

However brief, one can visualize these two paragraphs as part of an essay on the subject of Stockholm in a way that would be impossible for Text (19). This is due to two factors. First, each paragraph has a governing

topic. The two sentences of paragraph 1 illustrate and imply a "variety of Stockholm's population" topic, while in paragraph 2 the second sentence specifies the topic which is stated in the first. Second, although these two topics are still as unrelated as the topics listed in Text (19), each one is developed, which is not true of Text (19). This development may be minimal; still it is sufficient to bestow on each what van Dijk calls "independent topical character" (1977:139). For this reason it also makes sense to give each topic a paragraph of its own.

For a text to have "discourse character" then, one or the other of the following two conditions must be fulfilled:

Topic Condition One

If there are several propositions which are all on the same level of generality, they must be perceived as subordinate to a governing topic, defined, as Brown and Yule's *topic* is, as a proposition (e.g. Stockholm is beautiful) rather than as a noun phrase (e.g. Stockholm). Text (19) lacks a topic in this sense.

Topic Condition Two

If a text contains a series of propositions which are related to one another only by virtue of the fact that they share a topic entity (e.g. Stockholm in text (19)), and they are on the same level of generality, each of these propositions must be developed to the point where it acquires independent topical character, as in Text (21).

In relation to Conditions One and Two above, it has been pointed out that some perfectly acceptable texts are a) difficult to summarize and b) consist of a series of loosely related and undeveloped propositions, as in Texts (22) and (23) below.

- (22) Charles Lindbergh, a 25-year-old former mail pilot, landed in Paris this morning after a 33-hour solo flight from Long Island. Lindbergh flew a modified Ryan monoplane and navigated with a compass and sextant. He is expected to claim the \$ 25,000 prize for being the first person ever to fly nonstop across the Atlantic.

(23) *Future Society*

1984 is a novel about future society. It has become a classic in Anglo-Saxon literature. The author George Orwell wrote it in 1949 shortly before he died. He had developed from an idealistic leftwing supporter who took part in the Spanish Civil War into a disillusioned critic of totalitarian tendencies in politics. In his criticism he attacked both Fascism and Communism. In his sentiment he always remained 'left' but he wanted to be free of party labels.

Text (22) is a hypothetical opening paragraph for a longer article on Lindbergh's flight constructed by Daiker, Kerek and Morenberg (1982:211). To summarize this text as 'the circumstances of Lindbergh's historic flight across the Atlantic' is possible, but fairly artificial, mainly because *circumstances* could refer to so many other particulars than, for example, Lindbergh's age, and the sum of the prize money.

Text (23) is also an opening paragraph — in this case of a third-term student essay on *1984* as a portrayal of a possible future society. It is typical of introductions, which often consist of a loosely assorted list of facts about the subject area. Conclusions, similarly, may consist of summaries which are little more than lists of results or theses which have been developed in the body of a paper.

In such cases, however, it seems to me that the discourse topic is implied and determined by a set of clearly recognized conventions, or expected categories. The structure of Text (22) is determined, as Daiker et al point out, by the journalist's convention of the five W's plus H (Who? What? Where? When? Why? How?) (1982:210). As for Text (23), it provides instances of such standard literary concepts as the work's theme, its status, its genesis, as well as a few facts about its author and his views. In other words, such texts, which are particularly characteristic of introductions, evoke a set of standardized categories in our minds, which in themselves function as governing topics. It is therefore pointless to try to summarize them, or to require that the set of miscellaneous facts they list be developed into topics of their own.

But these are special cases, and as such form a category of exceptions to the two conditions formulated above. Otherwise van Dijk's criterion of 'discourse character' in terms of the summarizability of a text has proved particularly useful for the diagnosis of missing or unspecified topics in student essays.

Let us see how it may be applied to the opening paragraphs of the following 2nd-term essay.

(24) *Education*

1) "What do they actually learn in school today?" 2) Many adult people ask this question.

3) Every fifth pupil leaves school without sufficient knowledge of reading and writing an alarming report says. 4) The teachers complain that the parents take no notice of their children.

5) Practically everybody has a determined opinion about school and education. 6) Because everybody has been at school, we think we are experts. 7) We wouldn't dream of speaking so dead certainly of for example an engineer's job. 8) Many people also think that school can function in the same way as twenty-five years ago. 9) "Indeed we learned to read and write, why can't they do it today?" 10) The fact that you can't compare a grammar school with a "högstadium" has often been forgotten. 11) The grammar school was not compulsory as our "högstadium" is.

12) Thanks to our free upbringing, for better for worse, our children don't behave in school like we did...

S1-11 present the reader with three competing topics. S1-3 deal with learning problems, S4 is about teachers' complaints of parents' neglect and S5-11 develop the topic of people's attitudes to school. For S1-4 the reader might infer 'school problems' as a governing topic, but this hypothesis is then nullified by the change to people's "determined opinion about school and education" in the third paragraph. This paragraph could of course be interpreted as the beginning of a new subject; but because the nature of its link with the 'school problems' subject is unclear and because this latter subject in itself is so uncertain, the impression of three competing topics remains. Therefore it is not possible to gather the three under one superordinate topic which would summarize them. The governing topic which would pull together these threads is, in other words, unspecified.

The third paragraph of Text (24) also illustrates another aspect of this topic-formation problem. In itself the paragraph is well structured by a clear governing topic. Indeed, in classic handbook fashion, that topic is stated in the first sentence (S5). That the paragraph constitutes a well-formed unit is, however, not enough. For the reader still wonders what its

purpose in the larger context is. It seems to be introducing a new topic. But still, why has this topic been brought in here? What is the line of argument to which it is contributing?

It seems, then, that one of the requirements of successful topic formation is that the function of each succeeding unit of text be made clear. We must be able to perceive it as, for example, a qualification of a point just made, or as a contrast. We must be able to distinguish between what is intended as a specification, and the assertion of a new point.³ No matter how well-formed a sentence, a paragraph or even a whole section may be, if we cannot grasp its role in the surrounding text, it presents us with a case of unspecified topic.

For this reason, I have added a third criterion to nos. One and Two (p. 117) as follows:

Topic Condition Three

For a given text unit to have a topic, it must be clear what its function in the larger context is.

To illustrate further, let us diagnose another text in terms of both this criterion and no. One (the 'governing topic' requirement). Text (25) is a first-term essay.

(25) *The Hierarchy at my Job*

There is no doubt that hierarchy exists nearly at every job, and so it does in the school where I work as a teacher and have done so for ten years.

1) Of course, there are different subjects being taught and the teachers parting from each other in personalities, affects the atmosphere of the school. 2) Hierarchy could be an advantage, and that was the cause for me to study at the university; to try to become a teacher instead of only working as one. 3) In this school most teachers try to cooperate and to help each other when there are troubles of any kind, but there are some who do not allow anyone else to get involved in their work and they prevent others from making their points.

It seems that a great many teachers hold their ideas tight...

In combination with the title, the first paragraph states a clear subject. Indeed, it establishes that subject so firmly that we are led to expect a specification of *how* "hierarchy exists" at this school, in the immediately following sentences. In the process of reading on, we may hypothesize that S1 in the next paragraph functions as background information for the specification to come. S2, however, which returns us to the subject of hierarchy, defeats our expectations. For instead of a description of the ways hierarchy operates in the school, we are given an evaluation of the phenomenon of hierarchy (it is an "advantage"). The function of S2 in relation to the subject established in the first paragraph thus remains unclear. S3 then completes the rout of our attempt to relate this paragraph to the subject announced in the preceding paragraph.

The next step is to try another hypothesis: the function of the second paragraph may be to introduce a new subject. The only problem is that no clear subject emerges. Instead of a governing topic, we are presented again with three competing potential subjects: S1 makes the point that a variety of subjects and teacher personalities affects the school atmosphere. S2 evaluates hierarchy as an advantage and a reason to study (the fact that the nature of this hierarchy is not specified makes the sentence an example of an uncertain inference tie). S3, finally, states that a lack of cooperation prevents "others from making their points" (asserting themselves?).

Atmosphere in S1 and *try to cooperate* in S3 form an inference tie, so that S3 might be intended as a specification of S1. But this does not solve the basic problem. For at least two, if not three, competing topics remain, and there is no governing topic to reconcile them. As a result, it is difficult to see what function these single topics have. And, in turn, the result of this state of affairs is that the paragraph itself lacks a function in the context formed by the essay's title and opening paragraph.

2.2.5 *Unjustified Change of/Drift in Topic*

As was stated at the beginning of 2.2.4, this category is fourth in order of frequency in the material, and it is often found in combination with cases of unspecified topic.

Topic changes sometimes strike the reader as being abrupt. Often, however, they take the form of a gradual drift from what has been the main subject to a closely related, but secondary one, which ends up by displacing the original subject. We can make our description of this phenomenon more precise by observing how references to the cohesive chains which have been established as central to the topic become fewer and fewer and finally disappear altogether. (This point is numbered as 7.1 in the types of coherence break listed on p. 95 above.)

An analysis of the following passage from a 2nd-term essay will illustrate.

(26) *English at Nine*

§ 1 1) What I consider most important when learning a new language is not at what age you start it. 2) If two languages are spoken in your home or like in the homes of immigrants, where you speak one native language amongst the family and friends and another in school, problems might arise. 3) Preferably you should have a good command of your "home language" when starting, as then I feel you can easily adopt another.

§ 2 4) At the age of nine your vocabulary in Swedish is quite good and hopefully then you are interested and curious and therefore have a good ability to learn. 5) As for us Swedes, English is now part of our lives very early. 6) We watch English TV programmes and play records and from that you can always pick up new words. 7) If then at the same time you are taught correctly and get educated in that subject I think your interest grows and you learn more. 8) Parents also learn as they help their children with their homework and like that they have a common interest.

§ 3 9) We travel a lot and often take our children along. 10) Traveling is more fun for everybody when you can express yourself, order food, do shopping and simply understand what people around you say.

§ 4 11) Later on in life the knowledge of English is often "a must" when applying for a new job within many fields like computerizing, banking, airlines etc. 12) Manuals are often published in English.

§ 5 13) University studies demand a good knowledge of English in almost all subjects. 14) Books are often written in English.

As is often the case with impaired texts, the coherence problems of this essay are to be explained by a combination of factors. Still, it is possible,

as well as useful, I believe, to focus on the signals of the gradual drift in topic which it exhibits.

It takes some effort to work out the topic of paragraph 1 because the connection between S2 and its two neighbors S1 and S3 is unspecified. However, if one ignores S2, it is possible to summarize the topic of this paragraph in terms such as: the age you start learning a new language is not as important as the fact that you first have a good command of your "home language". Of the *age* chain and the "*home language*" chain, the former is the most prominent on account of the effect of the title, which establishes the age at which children start learning English as the topic of the whole essay. The *age* chain is then continued at the beginning of paragraph 2 in S4, which provides two reasons why nine is a good age to embark on the study of English.

Given the topic development of the rest of the paragraph, however, S5 is the start of a drift in topic away from arguments in favor of "English at nine" (S4) through two secondary subjects, 'how English can be learnt from the media' (S5-7) and 'the role of English in the relations between parents and children' (S8-10) to, finally, an enumeration of the reasons why English is useful generally, irrespective of age (paragraphs 4 and 5).

The text thus moves, through a series of almost imperceptible steps, from the topic 'nine is a good age to start learning English' to 'a knowledge of English is useful'. Of course these topics share one semantic component, namely, 'the acquisition/knowledge of English' and it is probably this fact that has blinded the writer to the differences between them, and, as such, has given rise to the drifting problem in the first place.

Let us trace the steps by which this drift takes place in terms of what happens to the central cohesive chains in the passage.

Title establishes the *English at nine* chain

S1 *language* and *age* continue it. *Learning* and *new* introduce the learning component of the chain, which is implied by the title.

S2-3 the references to language continue, but the learning and the age components of the original chain are dropped, which is one of the reasons for the paragraph's lack of clarity.

S4 *age of nine*, *vocabulary* and *learn* pick up all the three components of the chain again. In what was probably intended to function as the topic

sentence of §2, it provides two reasons why nine is a good age to begin the study of English.

- S5 *English* and *very early* continue the language and age components. The difficulty here is that the function of the sentence is unclear. We do not know whether it is giving us another reason for learning English at nine, or whether it is giving a more general explanation of the likelihood that children might be interested in the subject. The *as for* is also distracting, since the phrase is commonly used to introduce a new topic. Together these two factors set in motion the drift in topic.
- S6 *English* continues the language component, and *pick up new words* returns to the learning component, but the age component is dropped. This omission continues our uncertainty over the function of S5. For although S6 is a specification of S5 in that it explains in what way "English is part of our lives," we still do not know whether the fact that "you can always pick up new words" is a reason for starting English at nine or not.
- S7 *taught* and *educated* continue the learning component and *subject* the language one, but the age component is still missing, and with it, a specific reference to arguments in favor of learning English at nine.
- S8 introduces a new chain, namely *English in relation to parents and children*, which is continued in S9 and 10. *Children* by itself revives the age component of the original chain, but only very weakly. This is because *parents* become as important as *children* in the sentence, thus greatly diminishing the ability of *children* to signal a reference to age nine. The drift in topic away from reasons for learning English at nine is made particularly clear by the shift to the topic of parents learning in *parents also learn* and *they [parents and children] have a common interest*.
- S9-10 the *English in relation to parents and children* chain and hence the drift in topic, is continued in *we*, *our children*, and *everybody* (parents and children). The language component occurs in *express yourself* and *understand what people say*. But in S10, two of the central components of the original *learning English at nine* chain, namely, age and learning, have disappeared. As a result, the drift in topic comes to rest in the new topic 'a knowledge of English is useful' (at all ages).
- S11-14 continue the development of this topic. S11 marks the end of the parents-children chain and *later in life* explicitly signals the move away from the topic of learning English as a child. Both the learning and the age components of the original chain have now definitely disappeared. For the rest of the passage, the dominating chain is instead *the knowledge of English is "a must"*.

In the course of the passage we can observe, then, how references to two of the main components (*age nine* and *learning*) in the central cohesive chain (*learning English at nine*) gradually peter out. As we have seen, age nine is dropped in S6-7, is only weakly signalled in S8-9, and then disappears. As for learning, it does not reoccur after S8. The loss of these two components of the original chain naturally results in a drift in topic.

In the analysis of S5-6 above, it was pointed out that it was unclear what their function was. The same is true of the chain introduced by S8: we do not know why the topic of English as a bond between parents and children is brought in. Similarly, it is not clear why we are told in S11 that "the knowledge of English is 'a must'".

The answer to this second question is to be found in the conclusion to the essay:

- (26a) Therefore it is important that [English] is part of us from an early age and I am definitely for "English at Nine" (on top of this it is great fun too!).

The reason for my delay in providing the reader with the conclusion to this student's essay is that I wished to emphasize how difficult it is to work out, in the actual process of decoding the text, what the purpose of the information provided in S5-14 really is. For, although the conclusion makes the function of S11-14 clear (it is because "the knowledge of English is often 'a must'" that "it is important that it is part of us from an early age"), still we have to wait far too long for the missing clue it provides.

In addition, the burden on *therefore* is unreasonably great. It is, in fact, the only functioning sentence connector in the whole text (also in S8 is ambiguous). Does *therefore* refer only to the 'knowledge of English is useful' topic of S11-14, or does it include the information provided in S5-10 as well? With the kind of effort only researchers into impaired texts are willing to exert, it is possible, in fact, to interpret the conclusion's *therefore* as implying the following logical structure:

To start learning English at age nine is a good thing because:

- 1) one's "home language" has been well established by that time (S3-4).

- 2) one's interest in the language has been stimulated by the media (S5-7).
- 3) it provides a common interest to parents and children (S8-10).
- 4) it is such a very useful subject (S11-14).

A discussion with the writer of this essay might show that the above argument was, in fact, the one intended. If the student rewrote the paper specifying the logical connections between the propositions as they now stand, not only would the function of each become clear, but there would also be adequate references to the various components of the central cohesive chain. In this way, the drift-in-topic pitfall would be avoided.

As was mentioned at the beginning of this section, some changes of topic are abrupt rather than gradual. In these cases too the problem consists of a failure to make the purpose of the new topic clear. Compared to problems of drift in topic, however, the repair work called for is often fairly simple. As may be observed in Text (27), this variety frequently consists of what composition teachers call a "transition problem". (The excerpt is from a 3rd-term essay entitled "The Depiction of Middle-Aged Women and their Problems" in Angus Wilson's *The Middle Age of Mrs. Elton* and Doris Lessing's *The Summer Before the Dark*. The section it is taken from compares the presentation of marital relations in the two novels.)

(27)

§ 1- 1) Even Bill does not seem fit to live up to the idea of separate lives, he is absorbed in his work all right, but he is in a way jealous of her friends: 2) "He wanted no friendships for her that were centrifugal to her relationship with him" (*MAE*, p. 35). •"

§ 2- 3) Michael Brown does not seem to be jealous of Kate's friends or of the life she is leading without him. 4) As we already know, he is not only absorbed in his work, but he even has sexual relationships outside the marriage. 5) These adventures seem also to have included Kate's friend Mary, and Kate is the one that is jealous (*SDP*, p. 125 and p. 141). 6) Michael encourages Kate to live a life of her own, to take a job. 7) He thinks she is giving too much time to the children, that she is spoiling them.

§ 3- 8) The friends that are probably most centrifugal to Bill's relationship with Meg are the ones he calls "the lame ducks", the least

successful ones. 9) Bill and Meg feel themselves to be much happier and better off than these friends, but whereas Bill is able to control his pity, Meg has a tendency to release emotional demands that she cannot satisfy (*MAE*, p. 36). 10) Or as Bill says to her: "You're bound to be giving blank cheques to all the lonely people and the misfits you come across, and you can't honour half of them." 11) For Meg it is important to be liked, but Bill does not seem to care (*MAE*, p. 48).

The link between paragraphs 1 and 2 consists of the two husbands' attitudes to their wives' friends. Although this link could be made more explicit, even without such help, it is relatively easy for the reader to grasp. This is not true of the connection between paragraphs 2 and 3.

The problem lies not so much in the change from one book to the other. In a comparative essay, such shifts are normal, as long as the transitions are relatively smooth as in the connection between paragraphs 1 and 2. What is it, then, that makes the change of topic from paragraph 2 to 3 so abrupt — and so guzzling?

One way of describing this phenomenon is, again, to note the absence in paragraph 3 of references to the cohesive chains which are central to the topic of paragraph 2. The *sexual relationships* chain of S4-5, and the *life of her own* chain of S6 (continued in its antonym *giving too much time to the children* in S7) are both dropped in paragraph 3. Indeed, the *attitude to friends* chain started in S8 has its closest referent in S3, which is too far away. The intended referent, however, is probably paragraph 1. That is, paragraph 3 is constructed in such a way that it follows directly on from the end of paragraph 1; S8 is a specification of S2, as the repetition of the quoted *centrifugal to... relationship* shows. The result of the interruption which paragraph 2 brings about in the cohesive chains of paragraphs 1&3 is the perplexing jump in topic from paragraph 2 to 3. The jump is perplexing because it is practically impossible to work out what the function of the information about Meg's "lame duck" friends is in relation to the information which we have just been given in paragraph 2 about Michael's sexual relationships and his feeling that his wife should lead a life of her own.

Once again, the difficulty arises from the writer's failure to make his or her intention clear. The writer of Text (27) actually clarified his intentions in the following revision of S8. As a result, the rest of the paragraph, which remains unchanged, acquires a function:

(27a) 7) He thinks she is giving too much time to the children, that she is spoiling them.

8) While Michael thinks Kate gives too much time to the children, Bill feels that Meg spends too much time with the friends he calls "the lame ducks", the least successful ones. 9) Bill and Meg feel themselves to be much happier and better off than these friends, but whereas Bill is able to control his pity, Meg has a tendency to release emotional demands that she cannot satisfy (*MAE*, p. 36). 10) Or as Bill says to her: "You're bound to be giving blank cheques to all the lonely people and the misfits you come across, and you can't honour half of them." 11) For Meg it is important to be liked, but Bill does not seem to care (*MAE*, p. 48).

By picking up the *too much time* of S7, and repeating it, S8 establishes it as the cohesive chain which links the two sentences. It also explicitly makes a comparison between the two husbands' opinions, with the result that children and '*lame duck friends*' are seen to have the semantic component of 'needing mothering' in common. The respects in which the two couples are being compared are thus specified and the comparative function of paragraph 3 becomes clear. In this version S9 acquires an explanatory function: it explains why Bill feels that Meg spends too much time with her friends. S10 then specifies S9 by telling us in what way Meg releases "emotional demands she cannot satisfy." The function of S11 is less clear. We perceive this particularly well after the revision, since in this version S8 has given to S9-10 the function of developing the governing topic which it expresses, and so the failure of S11 to do this too stands out.

The revision analyzed above does not solve all the problems of relating paragraphs 2 and 3, but it does greatly improve the topic transition from one to the other. Interestingly enough, this revision involved only one sentence, and, as we have seen, nearly all the following sentences then acquired a clear function in relation to it. It is likely, therefore, that in rewriting S8, the writer of Text (27) simply made explicit his or her original intention. The repair was thus simple, but the topic change problem it solved was a serious one.

3. Conclusion

The five most frequent types of coherence break defined and exemplified in section 2 represent only half of those diagnosed in the material as listed on p. 95-6. They are, however, the most important ones in the sense of the degree of havoc they create in the readability of the texts. Of the topic-structuring problems, for example, irrelevance and misleading disposition (points 4 and 5 on the list) contribute mainly to unjustified changes in topic (point 2 on the list). As for the cohesion problems, our ability to form inferences is so central to our perception of coherence in texts that a failure to signal inference ties clearly results in major interpretative difficulties. Similarly, the devices which make sentence connections explicit are integral to the coherence of expository texts — that is, to texts which do not only state facts, but also explain, analyze and interpret them.

In the final report on this project I shall further develop this line of thought, and I shall also show the relation of those types of coherence breaks which have not yet been treated to the five most important ones that have been dealt with in this paper.

In conclusion, I should like briefly to outline the obvious limitations of a study of this kind. The reader will have noticed, first, that a considerable amount of overlap between the types of coherence break listed on p. 95-6 is possible. In texts where any number of things can go wrong at the same time, it can be difficult to decide how to classify a given problem. If, for example, a missing sentence connection makes the relation between two propositions baffling, it is easy to categorize it as a sentence connection problem. But if the missing sentence connection appears to result in a change of topic, then it can be difficult to classify the problem as one or the other. One solution is to diagnose the coherence break under both headings, another is to set up a hierarchy among the types of break, so that, for example, change of topic takes precedence over sentence connection. I have opted for the former procedure.

The types of coherence breaks offered in this paper should therefore not be understood as discrete and watertight classes. I have intended them rather to function as diagnostic instruments which I have attempted to make as explicit as possible. As such, it is my hope that they will prove useful to other researchers as well.

The second limitation of the study is that the texts in our material have been submitted to one judge only. This affects the validity not only of the interpretations of the texts themselves, but also of the decisions as to how to classify the problems identified in them. This is especially true of passages the intended meaning of which it is very difficult to reconstruct. A study such as this therefore relies heavily on intersubjectivity, that is, on the same likelihood of a reasonable degree of consensus that justifies literary criticism.

These subjectivity factors limit the value of the frequencies cited. I offer them as mere indications of a possible order of frequency which future studies might modify or confirm.

The methodological issues of the project will be discussed in more detail in the final report. In this paper my primary aim has been to make explicit my definitions of the types of coherence which I have used as diagnostic tools and to apply them to as many example texts as is practical. In this way, I hope I have made it feasible for my colleagues in the field to refine and improve upon them.

NOTES

1. I am grateful to Bertil Rolf of the Philosophy Department at Lund University for pointing this out in one of our fruitful discussions.
2. For discussions of paragraph structure in relation to levels of generality, see Christensen (1967) and Lindeberg in this volume. My approach has been greatly influenced by Lindeberg's work, which in its entirety will be published in a forthcoming dissertation.
3. See Paula Lieber's inventory of what she calls "functional roles" (1980:310-12). Although it is the first list of its kind applied to student texts, most of her functional roles have been defined more precisely by the text linguists' classification of types of sentence connection (see the references in 2.2.3, p. 94 above). For a development and refinement of Lieber's methods, see Lindeberg's paper in this volume.

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APPENDIX

Translations of the Swedish example texts.

Text 8

Of the countries he visited as an adult, the Philippines and Vietnam fascinate him the most. He thinks that the people there have an inner pride and respect for the individuality in man. According to X, this is something that to a great extent is lacking in Europe. In the Philippines X participated in the production of the film *Apocalypse Now*, among other things as an extra. This gave him the possibility of prolonging this stay in Asia.

1) Upon his return he studied at the university, political economy during two periods and, in between, modern Swedish. 2) When I meet X, we are in the lounge of the Stockholm School of Journalism. 3) He says it feels good that he finally has made up his mind to study to become a journalist.

4) He tells me that he has some experience of this profession as he has written articles about his travels. 5) Some of them have been published, but most of them were rejected. 6) He believes that he is aware of the tough demands made on a freelance journalist. 7) In order to be a successful one, you have to come up with new ideas and write about new, exclusive areas the whole time.

Text 10

Neighborhood Center 90

1) One problem area which also is a basis for the neighborhood centers is the poor recruitment of handicapped people into the labor market.

2) The neighborhood center can help provide possibilities for them to get a job.

Text 11

1) Today, however, technical developments have caught up in the area of tele/computer technology.

2) In the field experiment they will make a full-scale test of a new form of work-place, a neighborhood center which will be equipped with the latest facilities in the tele/computer area.

3) A number of employees, living in Nykvarn, will in this way get the opportunity to do their work close to home and at a distance from their employers.

Text 12

1) At the end of the 30s, as a young insurance agent, I was surprised to see that the management made so little use of their employees' pleasure in their work, their pride in mastering their work and the loyalty to the company that I witnessed around me.

2) But it was not until the middle of the 60s that I fully realized the enormous waste it must imply not to use these people's inherent qualities.

3) It took, in other words, a very long time between the perception of the phenomenon and an awareness of its consequences.

Text 13

He enjoys being with people but he also likes to stay home alone. He feels a bit uncertain but thinks that he has quite some ability.

This is the contradiction we find if we attempt to describe X, 27 and a first-term student of journalism.

Text 16

The Group's General Views

1) We would need more basic data in order to judge the socioeconomic aspects of the 'Lås & Tånger' company's move to Bräcke municipality. 2) The move fulfills the demand for urbanization and the net effect will be 222 new jobs within a period of three years.

3) We also think that the municipality should not let the company force them into granting them too many concessions so that the company will move there. 4) The municipality should make a socioeconomic calculation on this point so that it 'does not cost more than it is worth.' 5) This is also true for other authorities.

6) The municipality and the other authorities should acquire some kind of insight into the company so that they can look after the interests of the community.

7) The community should make a calculation and see what the community gets and what the community gives.

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